REPRESENTATIVE ESSAYS IN MODERN THOUGHT

A Basis for Composition

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REPRESENTATIVE ESSAYS

W. P. 9

PREFACE

In presenting this volume to teachers of English composition, the editors realize that it can hardly fail to suffer from the suspicion of novelty which confronts new publications in a conservative educational field. It is hoped, however, that initial distrust of the book because of its novelty will not outlive a fair trial of the methods and materials which it offers. This hope is based upon successful experiment with much of the substance of the volume among students as varied and as cosmopolitan as the undergraduates in Columbia College, and upon the generous and often enthusiastic support that the underlying idea has received from prominent educators throughout the country who have had occasion to pass judgment upon its value.

In the preparation of the collection for classroom use we have prefixed to each essay a brief introductory note intended to give relevant biographical facts and to assist the student to an understanding of the design of the work. In addition, where suggestions as to other material of direct bearing upon the subject under discussion seemed to us to be of value for collateral reading, we have included references to such writings. Some of the authors' footnotes to the essays have been omitted as foreign to the purpose of the book, and others have been supplied wherever the text seemed to require elucidation or interpretation. Our principle has been, however, to restrict the formal teaching apparatus of the volume to the general introduction, and to encumber the selections themselves with the minimum of annotation. In the printing of the essays we have followed accurately the original forms, retaining sub-titles and numbered divisions where these were essential to the logical arrangement of the essay.

This volume includes substantially the essays which, when we first discussed the plan of publication, we chose tentatively

as the most available for our purpose. That what seemed to us the ideal plan should be brought to completion with scarcely a modification is for us a matter for special gratitude, since any effort to reproduce on an extensive scale writings still in copyright must be conditioned largely upon the generosity of publishers. Our thanks for publishing privileges, therefore, are emphatically more than formal. We have been enabled to use copyright material through the kindness of Mr. Henry James, Jr., Dr. Dole, Mr. Mallock, Professor Hobhouse, Professor Clark, President Hadley, and Mr. Harrison; and by the permission of Messrs. D. Appleton and Company, Henry Holt and Company, Longmans, Green, and Company, John Murray, The Macmillan Company, the American Association for International Conciliation, the *Fortnightly Review*, the *Harvard Theological Review*, and the *Atlantic Monthly*. We desire also to express our acknowledgments to Viscount Morley and Dr. Alfred Russel Wallace, and to Macmillan and Company (London), the *Popular Science Monthly*, the *Contemporary Review*, and the Edinburgh Co-operative Printing Company Limited.

The task of selecting the essays and preparing the collection for publication has been materially lightened by the friendly coöperation of a number of our colleagues who have interested themselves in the undertaking. We are under special obligation to Professor John Erskine, to whom in large measure the credit for the educational program must be given, and who has aided our work with many helpful suggestions. Others to whom we have been indebted for advice and active interest are Professor Frederick J. E. Woodbridge, Professor Herbert G. Lord, Professor Ashley H. Thorndike, Professor Robert A. Harper, Professor Monroe Smith, Mr. Frederick P. Keppel, Dean of Columbia College, Professor Joseph V. Denney, of Ohio State University, Dr. Carl Van Doren, Mr. John J. Coss, and Dr. Ernest Stagg Whitin.

H. R. S.
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INTRODUCTION

THIS book has been compiled under the conviction that composition can be taught more effectively with ideas rather than with literary models or set exercises as the point of departure. That this conviction is opposed to some time-honored ideas of composition, the editors are fully aware. They are also aware that most teachers are agreed that the old methods of teaching composition are unsatisfactory; and it is the prevalence of this opinion which lends support to the belief that a book presenting a new method of handling the subject of composition ought not to be unwelcome, especially if the method has been tried successfully for some time at a representative university.

To many it must seem that one obvious reason for the failure of the older methods to accomplish the best results lies in the inadequacy of the material commonly employed in composition courses. This material usually consists of literary selections, which, for students of the age and training of the average freshman, generally fail to sustain interest; or it descends to trivialities, in overworking, frequently by the "daily theme" method, the small concerns of school or outside life.

In the belief that a new and more stimulating subject matter was desirable, the teachers at Columbia endeavored a few years ago to provide material which when used as a basis for composition would serve the purpose of not merely developing a formal accuracy in writing, but of expanding the student's ideas and increasing the number

of his points of contact with vital questions. In selecting more or less classic approaches to such provinces as biology, philosophy, modern politics, sociology, and practical religion, we relied upon the student's desire to know what fields of knowledge lie before him in his academic work, and we relied upon his natural curiosity in questions which, once presented, challenge him, as they challenge everybody, for answers. The only real problems were: first, to find material sufficiently simple and concrete in presentation to insure its fitness for this special period of intellectual development; and second, to make this material available in a single volume, as naturally the library facilities were overtaxed to provide a large number of students simultaneously with the required reading.

The result of the experiments with this subject matter at Columbia during the past two years has been an immediate and emphatic response to the stimulating interest of the questions taken up, once the students had adjusted themselves to the idea. There was scarcely an essay in the course which had not an appearance of forbidding profundity, or which did not seem to presuppose a more special knowledge of a particular field than the average freshman has mastered. But if the writing possessed sufficient irritancy to start speculation over the question presented, the initial objection to profundity disappeared and left the student convinced that his own common sense and reasoning powers were sufficient equipment for an approach to any of the subjects offered.

The selection of this series of essays as subject matter for a course in English composition does not necessarily restrict the essays to that use, as the cultural relations of the material are sufficiently broad to adapt it to many educational ends. The important fact is that in our mod-

ern college curriculums adequate provision is seldom made for allowing the student's stock of ideas on vital questions an opportunity for better organization and greater expansion, or for orienting him in the field of collegiate studies. Possibly much of the diffuseness and ineffectiveness of the elective system may be traced to this very condition. It may not be the particular province of the English department to remedy these deficiencies, but it seems clear that since teachers of English are so frequently obliged to go hunting for subject matter, such an opportunity may profitably be accepted, particularly if it serve the purpose of accomplishing two important educational ends at once. With the general and commendable tendency to establish a definite coördination between the various subjects of undergraduate study, however, there can be little question that whether the "course in ideas" is given as philosophy, history, English, or as the growingly popular general culture course, in any event it has a place of profound value in the college curriculum, and is probably most beneficial when presented as one of the first steps in the student's work.

A device which experience has shown to be very successful has been followed all but uniformly throughout the present volume. Whenever a problem has been introduced about which "much may be said on both sides," two typical essays, representing the two points of view, have been offered. For this reason Arnold's *Sweetness and Light*, which upholds the traditional classical culture, is opposed to Huxley's *Science and Culture*, which defends the viewpoint of modern science. W. K. Clifford's *Ethics of Belief*, emphasizing scientific skepticism as a moral obligation, is followed by Professor James's *Will to Believe*, which justifies the acceptance without proof of religious beliefs. Huxley's Darwinian essay and Tyndall's *Belfast Address*, both of which at least suggest a

materialistic philosophy, are contrasted with Dr. Dole's *Truth and Immortality*, a reasoned argument for belief in a future life. The two essays on socialism and the two on the present position of women afford similar contrasts in treatment. Such a grouping of mutually opposed constructive ideas is of course emphatically more stimulating both to the imagination and the reason than the presentation of one side of questions which have been historically matters of dispute. In the case of such works, however, as Mr. Mallock's *Scientific Bases of Optimism*, a criticism of a typically modern philosophical position, and Sir Henry Sumner Maine's *Prospects of Popular Government*, a British analysis of the institution of democracy, the issues defined are academic rather than popular, and are presented with so much originality and force that they are probably sufficient in themselves to establish the high interest of the questions with which they deal, without the risk of cultivating prejudices.

Since this volume may represent a new and unfamiliar educational program to many, a word as to our method of handling these essays as materials for composition may not be out of order. In the first place, it has been our custom to use this reading for the second half of the freshman year, and to prepare the way for this term's work by composition drill during the first term, by impromptu themes written in class and based upon assigned selections that give opportunity for an understanding of the methods of scientific inquiry. An effective method of approach in this first term lies in the use of historical memoirs, autobiography, books of the Bible, and literary works of historical flavor, for the purpose of establishing inductively some primary conceptions of social, political, and moral evolution. A variety of material of this sort will immediately suggest itself: for example, Homer, Sophocles, or Æschylus; Plutarch's *Lives;* the

less intricate dialogues of Plato, such as the *Protagoras;* Norse sagas — or decently faithful reproductions of their spirit, as Morris's *Lovers of Gudrun;* parts of Cellini's autobiography; Chesterfield's *Letters*,—anything which depicts vividly the influence of custom upon ideas and actions. We have been accustomed to alternate this reading with literary work less familiar to the average student, and generally less in literary pretentiousness than that which his forced preparatory school instruction has brought him to respect—and sometimes to detest —without clear reason. Works of this class might include the more unfamiliar plays of Shakespeare; simple narrative poems like Wordsworth's *Michael* and Tennyson's *Enoch Arden;* the *Ingoldsby Legends;* novels which invite discussion, like *Jane Eyre*, *Wuthering Heights*, *David Balfour*, *Sentimental Tommy;* even the less philosophical of the novels of Meredith or Hardy—*The Ordeal of Richard Feverel*, or *The Mayor of Casterbridge*. The effect of this infusion of lighter literature is to eliminate the student's sense of strangeness in a new field by enlarging at the same time his knowledge of a field in which he already feels some degree of acquaintance.

With this foundation, then, established during the first term, we find the student relieved more or less of the tendency to argue and think upon presumptive grounds, and generally receptive to the discussion of questions which touch his inner life and his relations to men and institutions.

In the second term's work we have been accustomed to assign one piece of reading each week, not limiting ourselves to the series of essays printed here — for, once more, this volume merely makes available a number of important essays which are generally inaccessible to a large body of students — but supplementing our special inquiry with ma-

terial from the more purely literary field, as it may seem expedient. Large possibilities in this direction may be seen in both the highways and byways of literature of the late nineteenth century, in poems such as Tennyson's *In Memoriam*, in modern editorials or magazine articles, in short stories interpretative of life, such as Hardy's *Fellow-Townsmen*, Stevenson's *Ebb Tide*, Kipling's Mowgli stories, or in plays of the most modern of moderns, if the student is kept properly aware of the glamour of the cleverly expressed half truth.

On each of our weekly assignments we require impromptu themes of about five hundred words, written in the classroom, upon assigned topics which suggest the salient points of the work under consideration.[1] Every effort is made to encourage the student to think for himself and to state his own position on the questions involved. The usual result is that the student discovers, perhaps for the first time, that he has ideas on questions of religion, morals, politics, social conduct, and the like, and develops an interest and fluency in expressing them that have been noticeably absent in his previous compositions. With his interest once aroused and his mind free, the frank dislike of composition work too often inspired by distasteful or trivial subject matter may quickly disappear, as well as the self-consciousness in writing that a

[1] The editors have not equipped the essays with suggested topics for themes, believing that this part of the program should be left to the judgment of the teacher in each case. The kind of topics thought most effective, however, for, say, Tyndall's *Belfast Address*, may be indicated by examples: *Liberty of discussion as applied to scientific thought, The experimental method, Bishop Butler and the disciple of Lucretius, The special provinces of science and religion.*

The idea is that the topics should be of such a nature as to allow the student no opportunity of merely reproducing the argument or substance of the essay, but rather to encourage him to form his own opinions on the questions presented and to give him all possible latitude in expressing them.

too labored application of rhetorical formulas is apt to develop.

The following meeting of the class is taken up with a general discussion of the ideas evolved in the writing; and in this discussion it is not ordinarily necessary to resort to artificial methods of sustaining interest. Such discussions, which are by their nature free, informal, and even intimate, may frequently be pursued into other hours of meeting; but in many cases the necessities of composition work require attention to matters of form — exclusive of mechanical errors, which we believe should be treated only in individual conferences — and this must inevitably reduce the time devoted to the "ideas" part of the course. Our program of reading and discussion is obviously best adapted to students whose preparatory training in the principles of composition has been adequate. On the other hand, students whose preparation has been deficient should be segregated in a special section and given instruction adapted to their needs, lest their presence in the regular class hinder the profitable employment of the "course in ideas." In the case of students whose composition is not radically faulty but whose intellectual maturity may be below that of the average freshman, discussion of the fundamental problems in the assignment might very well precede the writing of the themes. In fact, wherever the substance of the assignment is really profound, or its treatment unusually obscure, an attempt at interpretation or at least clarification of the work is to be recommended as introductory to the writing itself. But whether discussion of the essay precedes or follows the writing, the key to effective understanding is discussion founded upon common sense, and free from even an intimation of dogmatic or pedantic assurance.

This suggested program covers a great deal more material

than could possibly be utilized to full advantage in a single term's work. We have intimated the extent of the field of choice, however, in the belief that further suggestion may facilitate the process of selection for the teacher for whom this program is still only experimental.

It is probably unnecessary to point out that none of the essays in this volume are intended by the editors to represent their judgments upon the issues involved. Whether right or wrong, both conservative and radical points of view have been given. In many cases, however, where a difference of opinion is clearly inevitable, but where the presentation of one side of the question defines the objections that might be urged by the opposition, no effort has been made to adhere to a systematic impartiality. The purpose of the volume is, after all, to encourage the student to form his own opinions upon proper evidence; and to this end it is not necessary in every instance to offer him a choice of opinions already formulated.

Finally, these essays are in many cases not the last word of technical accuracy or theoretical subtlety. What we have sought, and what we believe we have succeeded in securing in every work offered here, is a stimulating presentation, sufficiently general and dignified in its handling of the apparent truth to lay just claim to permanent esteem, even though, in some cases, later intellectual progress may demonstrate the work to be partially deficient in method or in scientific detail.

REPRESENTATIVE ESSAYS IN MODERN THOUGHT: A BASIS FOR COMPOSITION

I

SWEETNESS AND LIGHT

MATTHEW ARNOLD

[Matthew Arnold (1822–1888), son of the famous educator, Dr. Thomas Arnold, is well known as a poet, but more particularly as a critic of literature, religion, politics, and society, and as the foremost apostle of culture and champion of classical education in a scientific and materialistic age.

The following essay is admirably illustrative of this latter phase of his activity, and is the recognized classic exposition of the humanist point of view. In it Arnold sets forth his ideal of culture as the panacea for the social evils of the time and as the means of attaining a harmonious and equal development of all those powers in man that are essential for perfect human nature. This view of culture underlies Arnold's protest, set forth later in *Literature and Science*, against the growing movement of the age to exalt the sciences over the humanities in education. Arnold, while not blind to the importance of modern scientific truth, maintains that the pursuit of science tends toward a one-sided development and leaves man with the greater part of his nature unawakened and as unprepared as ever for the practical duty of living a harmonious, well balanced, and perfected human life, which the study of the classics and the old humanities alone can bring about. This contention is answered in the next selection by Huxley, who upholds the cultural and educational value of the physical sciences.

Sweetness and Light was delivered as Arnold's last lecture in the chair of poetry at Oxford, and first appeared in the *Cornhill Magazine* for July, 1867, under the title *Culture and Its Enemies*. In 1869 it was published in book form as the opening chapter of the volume *Culture and Anarchy*.]

THE disparagers of culture make its motive curiosity; sometimes, indeed, they make its motive mere exclusiveness and vanity. The culture which is supposed to plume itself on a smattering of Greek and Latin is a culture which is begotten by

nothing so intellectual as curiosity; it is valued either out of sheer vanity and ignorance or else as an engine of social and class distinction, separating its holder, like a badge or title, from other people who have not got it. No serious man would call this *culture*, or attach any value to it, as culture, at all. To find the real ground for the very differing estimate which serious people will set upon culture, we must find some motive for culture in the terms of which may lie a real ambiguity; and such a motive the word *curiosity* gives us.

I have before now pointed out that we English do not, like the foreigners, use this word in a good sense as well as in a bad sense. With us the word is always used in a somewhat disapproving sense. A liberal and intelligent eagerness about the things of the mind may be meant by a foreigner when he speaks of curiosity, but with us the word always conveys a certain notion of frivolous and unedifying activity. In the *Quarterly Review*, some little time ago, was an estimate of the celebrated French critic, M. Sainte-Beuve, and a very inadequate estimate it in my judgment was. And its inadequacy consisted chiefly in this: that in our English way it left out of sight the double sense really involved in the word *curiosity*, thinking enough was said to stamp M. Sainte-Beuve with blame if it was said that he was impelled in his operations as a critic by curiosity, and omitting either to perceive that M. Sainte-Beuve himself, and many other people with him, would consider that this was praiseworthy and not blameworthy, or to point out why it ought really to be accounted worthy of blame and not of praise. For as there is a curiosity about intellectual matters which is futile, and merely a disease, so there is certainly a curiosity, — a desire after the things of the mind simply for their own sakes and for the pleasure of seeing them as they are, — which is, in an intelligent being, natural and laudable. Nay, and the very desire to see things as they are implies a balance and regulation of mind which is not often attained without fruitful effort, and which is the very opposite of the blind and diseased impulse of mind which is what we mean to blame when we blame curiosity. Montesquieu says: "The first

motive which ought to impel us to study is the desire to augment the excellence of our nature, and to render an intelligent being yet more intelligent." This is the true ground to assign for the genuine scientific passion, however manifested, and for culture, viewed simply as a fruit of this passion; and it is a worthy ground, even though we let the term *curiosity* stand to describe it.

But there is of culture another view, in which not solely the scientific passion, the sheer desire to see things as they are, natural and proper in an intelligent being, appears as the ground of it. There is a view in which all the love of our neighbor, the impulses towards action, help, and beneficence, the desire for removing human error, clearing human confusion, and diminishing human misery, the noble aspiration to leave the world better and happier than we found it, — motives eminently such as are called social, — come in as part of the grounds of culture, and the main and preëminent part. Culture is then properly described not as having its origin in curiosity, but as having its origin in the love of perfection; it is *a study of perfection.* It moves by the force, not merely or primarily of the scientific passion for pure knowledge, but also of the moral and social passion for doing good. As, in the first view of it, we took for its worthy motto Montesquieu's words: "To render an intelligent being yet more intelligent!" so, in the second view of it, there is no better motto which it can have than these words of Bishop Wilson: "To make reason and the will of God prevail!"

Only, whereas the passion for doing good is apt to be overhasty in determining what reason and the will of God say, because its turn is for acting rather than thinking and it wants to be beginning to act; and whereas it is apt to take its own conceptions, which proceed from its own state of development and share in all the imperfections and immaturities of this, for a basis of action; what distinguishes culture is, that it is possessed by the scientific passion as well as by the passion of doing good; that it demands worthy notions of reason and the will of God, and does not readily suffer its own crude conceptions to substitute themselves for

them. And knowing that no action or institution can be salutary and stable which is not based on reason and the will of God, it is not so bent on acting and instituting, even with the great aim of diminishing human error and misery ever before its thoughts, but that it can remember that acting and instituting are of little use, unless we know how and what we ought to act and to institute.

This culture is more interesting and more far-reaching than that other, which is founded solely on the scientific passion for knowing. But it needs times of faith and ardor, times when the intellectual horizon is opening and widening all round us, to flourish in. And is not the close and bounded intellectual horizon within which we have long lived and moved now lifting up, and are not new lights finding free passage to shine in upon us? For a long time there was no passage for them to make their way in upon us, and then it was of no use to think of adapting the world's action to them. Where was the hope of making reason and the will of God prevail among people who had a routine which they had christened reason and the will of God, in which they were inextricably bound, and beyond which they had no power of looking? But now the iron force of adhesion to the old routine, — social, political, religious, — has wonderfully yielded; the iron force of exclusion of all which is new has wonderfully yielded. The danger now is, not that people should obstinately refuse to allow anything but their old routine to pass for reason and the will of God, but either that they should allow some novelty or other to pass for these too easily, or else that they should underrate the importance of them altogether, and think it enough to follow action for its own sake, without troubling themselves to make reason and the will of God prevail therein. Now, then, is the moment for culture to be of service, culture which believes in making reason and the will of God prevail, believes in perfection, is the study and pursuit of perfection, and is no longer debarred, by a rigid, invincible exclusion of whatever is new, from getting acceptance for its ideas, simply because they are new.

The moment this view of culture is seized, the moment it is regarded not solely as the endeavor to see things as they are, to draw towards a knowledge of the universal order which seems to be intended and aimed at in the world, and which it is a man's happiness to go along with or his misery to go counter to, — to learn, in short, the will of God, — the moment, I say, culture is considered not merely as the endeavor to *see* and *learn* this, but as the endeavor, also, to make it *prevail*, the moral, social, and beneficent character of culture becomes manifest. The mere endeavor to see and learn the truth for our own personal satisfaction is indeed a commencement for making it prevail, a preparing the way for this, which always serves this, and is wrongly, therefore, stamped with blame absolutely in itself and not only in its caricature and degeneration. But perhaps it has got stamped with blame, and disparaged with the dubious title of curiosity, because in comparison with this wider endeavor of such great and plain utility it looks selfish, petty, and unprofitable.

And religion, the greatest and most important of the efforts by which the human race has manifested its impulse to perfect itself, — religion, that voice of the deepest human experience, — does not only enjoin and sanction the aim which is the great aim of culture, the aim of setting ourselves to ascertain what perfection is and to make it prevail; but also, in determining generally in what human perfection consists, religion comes to a conclusion identical with that which culture, — seeking the determination of this question through all the voices of human experience which have been heard upon it, of art, science, poetry, philosophy, history, as well as of religion, in order to give a greater fullness and certainty to its solution, — likewise reaches. Religion says: *The kingdom of God is within you;* and culture, in like manner, places human perfection in an *internal* condition, in the growth and predominance of our humanity proper, as distinguished from our animality. It places it in the ever increasing efficacy and in the general harmonious expansion of those gifts of thought and feeling which make the peculiar dignity, wealth, and happi-

ness of human nature. As I have said on a former occasion: "It is in making endless additions to itself, in the endless expansion of its powers, in endless growth in wisdom and beauty, that the spirit of the human race finds its ideal. To reach this ideal, culture is an indispensable aid, and that is the true value of culture." Not a having and a resting, but a growing and a becoming, is the character of perfection as culture conceives it; and here, too, it coincides with religion.

And because men are all members of one great whole, and the sympathy which is in human nature will not allow one member to be indifferent to the rest or to have a perfect welfare independent of the rest, the expansion of our humanity, to suit the idea of perfection which culture forms, must be a *general* expansion. Perfection, as culture conceives it, is not possible while the individual remains isolated. The individual is required, under pain of being stunted and enfeebled in his own development if he disobeys, to carry others along with him in his march towards perfection, to be continually doing all he can to enlarge and increase the volume of the human stream sweeping thitherward. And here, once more, culture lays on us the same obligation as religion, which says, as Bishop Wilson has admirably put it, that "to promote the kingdom of God is to increase and hasten one's own happiness."

But, finally, perfection, — as culture from a thorough disinterested study of human nature and human experience learns to conceive it, — is a harmonious expansion of *all* the powers which make the beauty and worth of human nature, and is not consistent with the overdevelopment of any one power at the expense of the rest. Here culture goes beyond religion, as religion is generally conceived by us.

If culture, then, is a study of perfection, and of harmonious perfection, general perfection, and perfection which consists in becoming something rather than in having something, in an inward condition of the mind and spirit, not in an outward set of circumstances, — it is clear that culture, instead of being the frivolous and useless thing which Mr. Bright, and Mr. Frederic

Harrison,[1] and many other Liberals [2] are apt to call it, has a very important function to fulfill for mankind. And this function is particularly important in our modern world, of which the whole civilization is, to a much greater degree than the civilization of Greece and Rome, mechanical and external, and tends constantly to become more so. But above all in our own country has culture a weighty part to perform, because here that mechanical character, which civilization tends to take everywhere, is shown in the most eminent degree. Indeed nearly all the characters of perfection, as culture teaches us to fix them, meet in this country with some powerful tendency which thwarts them and sets them at defiance. The idea of perfection as an *inward* condition of the mind and spirit is at variance with the mechanical and material civilization in esteem with us, and nowhere, as I have said, so much in esteem as with us. The idea of perfection as a *general* expansion of the human family is at variance with our strong individualism, our hatred of all limits to the unrestrained swing of the individual's personality, our maxim of "every man for himself." Above all, the idea of perfection as a *harmonious* expansion of human nature is at variance with our want of flexibility, with our inaptitude for seeing more than one side of a thing, with our intense energetic absorption in the particular pursuit we happen to be following. So culture has a rough task to achieve in this country. Its preachers have, and are likely long to have, a hard time of it, and they will much oftener be regarded, for a great while to come, as elegant or spurious Jeremiahs than as friends and benefactors. That, however, will not prevent their doing in the end good service if they persevere. And, meanwhile, the mode of action they have to pursue, and the sort of habits they must fight against, ought to be made quite clear for every one to see,

[1] See p. 502. In an article entitled *Culture; a Dialogue* (*Fortnightly Review*, November, 1867), Mr. Harrison criticized Arnold's advocacy of culture as the remedy for the evils of society. — *Editors.*

[2] The Liberal party in English politics is made up of adherents to progressive political principles. — *Editors.*

who may be willing to look at the matter attentively and dispassionately.

Faith in machinery[1] is, I said, our besetting danger; often in machinery most absurdly disproportioned to the end which this machinery, if it is to do any good at all, is to serve; but always in machinery, as if it had a value in and for itself. What is freedom but machinery? what is population but machinery? what is coal but machinery? what are railroads but machinery? what is wealth but machinery? what are, even, religious organizations but machinery? Now almost every voice in England is accustomed to speak of these things as if they were precious ends in themselves, and therefore had some of the characters of perfection indisputably joined to them. I have before now noticed Mr. Roebuck's stock argument for proving the greatness and happiness of England as she is, and for quite stopping the mouths of all gainsayers. Mr. Roebuck is never weary of reiterating this argument of his, so I do not know why I should be weary of noticing it. "May not every man in England say what he likes?" — Mr. Roebuck perpetually asks; and that, he thinks, is quite sufficient, and when every man may say what he likes, our aspirations ought to be satisfied. But the aspirations of culture, which is the study of perfection, are not satisfied, unless what men say, when they may say what they like, is worth saying, — has good in it, and more good than bad. In the same way the *Times*, replying to some foreign strictures on the dress, looks, and behavior of the English abroad, urges that the English ideal is that every one should be free to do and to look just as he likes. But culture indefatigably tries, not to make what each raw person may like the rule by which he fashions himself, but to draw ever nearer to a sense of what is indeed beautiful, graceful, and becoming, and to get the raw person to like that.

And in the same way with respect to railroads and coal. Every one must have observed the strange language current during the late discussions as to the possible failure of our supplies of coal.

[1] Arnold uses the word *machinery* throughout this essay in the sense of any kind of means for the accomplishment of ends. — *Editors.*

Our coal, thousands of people were saying, is the real basis of our national greatness; if our coal runs short, there is an end of the greatness of England. But what *is* greatness? — culture makes us ask. Greatness is a spiritual condition worthy to excite love, interest, and admiration; and the outward proof of possessing greatness is that we excite love, interest, and admiration. If England were swallowed up by the sea to-morrow, which of the two, a hundred years hence, would most excite the love, interest, and admiration of mankind, — would most, therefore, show the evidences of having possessed greatness, — the England of the last twenty years, or the England of Elizabeth, of a time of splendid spiritual effort, but when our coal, and our industrial operations depending on coal, were very little developed? Well, then, what an unsound habit of mind it must be which makes us talk of things like coal or iron as constituting the greatness of England, and how salutary a friend is culture, bent on seeing things as they are, and thus dissipating delusions of this kind and fixing standards of perfection that are real!

Wealth, again, that end to which our prodigious works for material advantage are directed, — the commonest of commonplaces tells us how men are always apt to regard wealth as a precious end in itself; and certainly they have never been so apt thus to regard it as they are in England at the present time. Never did people believe anything more firmly than nine Englishmen out of ten at the present day believe that our greatness and welfare are proved by our being so very rich. Now, the use of culture is that it helps us, by means of its spiritual standard of perfection, to regard wealth as but machinery, and not only to say as a matter of words that we regard wealth as but machinery, but really to perceive and feel that it is so. If it were not for this purging effect wrought upon our minds by culture, the whole world, the future as well as the present, would inevitably belong to the Philistines.[1] The people who believe most that our great-

[1] With Arnold a term of reproach for uncultured and commonplace people. The Philistines of the Old Testament were the traditional enemies of the "chosen people." Hence the nineteenth-century application of the

ness and welfare are proved by our being very rich, and who most give their lives and thoughts to becoming rich, are just the very people whom we call Philistines. Culture says: "Consider these people, then, their way of life, their habits, their manners, the very tones of their voice; look at them attentively; observe the literature they read, the things which give them pleasure, the words which come forth out of their mouths, the thoughts which make the furniture of their minds; would any amount of wealth be worth having with the condition that one was to become just like these people by having it?" And thus culture begets a dissatisfaction which is of the highest possible value in stemming the common tide of men's thoughts in a wealthy and industrial community, and which saves the future, as one may hope, from being vulgarized, even if it cannot save the present.

Population, again, and bodily health and vigor, are things which are nowhere treated in such an unintelligent, misleading, exaggerated way as in England. Both are really machinery; yet how many people all around us do we see rest in them and fail to look beyond them! Why, one has heard people, fresh from reading certain articles of the *Times* on the Registrar-General's returns of marriages and births in this country, who would talk of our large English families in quite a solemn strain, as if they had something in itself beautiful, elevating, and meritorious in them; as if the British Philistine would have only to present himself before the Great Judge with his twelve children, in order to be received among the sheep as a matter of right!

But bodily health and vigor, it may be said, are not to be classed with wealth and population as mere machinery; they have a more real and essential value. True; but only as they are more intimately connected with a perfect spiritual condition than wealth or population are. The moment we disjoin them from the idea of a perfect spiritual condition, and pursue them, as we do pursue them, for their own sake and as ends in themselves, our worship of them becomes as mere worship of machin-

name to the enemies of culture: those whose interests were limited by narrow and material aims. — *Editors.*

ery, as our worship of wealth or population, and as unintelligent and vulgarizing a worship as that is. Every one with anything like an adequate idea of human perfection has distinctly marked this subordination to higher and spiritual ends of the cultivation of bodily vigor and activity. "Bodily exercise profiteth little; but godliness is profitable unto all things," says the author of the Epistle to Timothy. And the utilitarian Franklin says just as explicitly: "Eat and drink such an exact quantity as suits the constitution of thy body, *in reference to the services of the mind.*" But the point of view of culture, keeping the mark of human perfection simply and broadly in view, and not assigning to this perfection, as religion or utilitarianism assigns to it, a special and limited character, this point of view, I say, of culture is best given by these words of Epictetus: "It is a sign of ἀφυΐα," says he, — that is, of a nature not finely tempered, — "to give yourselves up to things which relate to the body; to make, for instance, a great fuss about exercise, a great fuss about eating, a great fuss about drinking, a great fuss about walking, a great fuss about riding. All these things ought to be done merely by the way: the formation of the spirit and character must be our real concern." This is admirable; and, indeed, the Greek word εὐφυΐα, a finely tempered nature, gives exactly the notion of perfection as culture brings us to conceive it: a harmonious perfection, a perfection in which the characters of beauty and intelligence are both present, which unites "the two noblest of things," — as Swift, who of one of the two, at any rate, had himself all too little, most happily calls them in his *Battle of the Books*, — "the two noblest of things, *sweetness and light.*" The εὐφυής is the man who tends towards sweetness and light; the ἀφυής, on the other hand, is our Philistine. The immense spiritual significance of the Greeks is due to their having been inspired with this central and happy idea of the essential character of human perfection; and Mr. Bright's misconception of culture, as a smattering of Greek and Latin, comes itself, after all, from this wonderful significance of the Greeks having affected the very machinery of our education, and is in itself a kind of homage to it.

In thus making sweetness and light to be characters of perfection, culture is of like spirit with poetry, follows one law with poetry. Far more than on our freedom, our population, and our industrialism, many amongst us rely upon our religious organizations to save us. I have called religion a yet more important manifestation of human nature than poetry, because it has worked on a broader scale for perfection, and with greater masses of men. But the idea of beauty and of a human nature perfect on all its sides, which is the dominant idea of poetry, is a true and invaluable idea, though it has not yet had the success that the idea of conquering the obvious faults of our animality, and of a human nature perfect on the moral side, — which is the dominant idea of religion, — has been enabled to have; and it is destined, adding to itself the religious idea of a devout energy, to transform and govern the other.

The best art and poetry of the Greeks, in which religion and poetry are one, in which the idea of beauty and of a human nature perfect on all sides adds to itself a religious and devout energy, and works in the strength of that, is on this account of such surpassing interest and instructiveness for us, though it was, — as, having regard to the human race in general, and, indeed, having regard to the Greeks themselves, we must own, — a premature attempt, an attempt which for success needed the moral and religious fiber in humanity to be more braced and developed than it had yet been. But Greece did not err in having the idea of beauty, harmony, and complete human perfection so present and paramount. It is impossible to have this idea too present and paramount; only, the moral fiber must be braced too. And we, because we have braced the moral fiber, are not on that account in the right way, if at the same time the idea of beauty, harmony, and complete human perfection is wanting or misapprehended amongst us; and evidently it *is* wanting or misapprehended at present. And when we rely as we do on our religious organizations, which in themselves do not and cannot give us this idea, and think we have done enough if we make them spread and prevail, then I say we fall into our common fault of overvaluing machinery.

Nothing is more common than for people to confound the inward peace and satisfaction which follows the subduing of the obvious faults of our animality with what I may call absolute inward peace and satisfaction, — the peace and satisfaction which are reached as we draw near to complete spiritual perfection, and not merely to moral perfection, or rather to relative moral perfection. No people in the world have done more and struggled more to attain this relative moral perfection than our English race has. For no people in the world has the command to *resist the devil*, to *overcome the wicked one*, in the nearest and most obvious sense of those words, had such a pressing force and reality. And we have had our reward, not only in the great worldly prosperity which our obedience to this command has brought us, but also, and far more, in great inward peace and satisfaction. But to me few things are more pathetic than to see people, on the strength of the inward peace and satisfaction which their rudimentary efforts towards perfection have brought them, employ, concerning their incomplete perfection and the religious organizations within which they have found it, language which properly applies only to complete perfection, and is a far-off echo of the human soul's prophecy of it. Religion itself, I need hardly say, supplies them in abundance with this grand language. And very freely do they use it; yet it is really the severest possible criticism of such an incomplete perfection as alone we have yet reached through our religious organizations.

The impulse of the English race towards moral development and self-conquest has nowhere so powerfully manifested itself as in Puritanism. Nowhere has Puritanism found so adequate an expression as in the religious organization of the Independents. The modern Independents have a newspaper, the *Nonconformist*, written with great sincerity and ability. The motto, the standard, the profession of faith, which this organ of theirs carries aloft, is: "The Dissidence of Dissent and the Protestantism of the Protestant religion." There is sweetness and light, and an ideal of complete harmonious human perfection! One need not go to culture and poetry to find language to judge it. Religion,

with its instinct for perfection, supplies language to judge it, language, too, which is in our mouths every day. "Finally, be of one mind, united in feeling," says St. Peter. There is an ideal which judges the Puritan ideal: "The Dissidence of Dissent and the Protestantism of the Protestant religion!" And religious organizations like this are what people believe in, rest in, would give their lives for! Such, I say, is the wonderful virtue of even the beginnings of perfection, of having conquered even the plain faults of our animality, that the religious organization which has helped us to do it can seem to us something precious, salutary, and to be propagated, even when it wears such a brand of imperfection on its forehead as this. And men have got such a habit of giving to the language of religion a special application, of making it a mere jargon, that for the condemnation which religion itself passes on the shortcomings of their religious organizations they have no ear; they are sure to cheat themselves and to explain this condemnation away. They can only be reached by the criticism which culture, like poetry, speaking a language not to be sophisticated, and resolutely testing these organizations by the ideal of a human perfection complete on all sides, applies to them.

But men of culture and poetry, it will be said, are again and again failing, and failing conspicuously, in the necessary first stage to a harmonious perfection, in the subduing of the great obvious faults of our animality, which it is the glory of these religious organizations to have helped us to subdue. True, they do often so fail. They have often been without the virtues as well as the faults of the Puritan; it has been one of their dangers that they so felt the Puritan's faults that they too much neglected the practice of his virtues. I will not, however, exculpate them at the Puritan's expense. They have often failed in morality, and morality is indispensable. And they have been punished for their failure, as the Puritan has been rewarded for his performance. They have been punished wherein they erred; but their ideal of beauty, of sweetness and light, and a human nature complete on all its sides, remains the true ideal of per-

fection still; just as the Puritan's ideal of perfection remains narrow and inadequate, although for what he did well he has been richly rewarded. Notwithstanding the mighty results of the Pilgrim Fathers' voyage, they and their standard of perfection are rightly judged when we figure to ourselves Shakespeare or Virgil, — souls in whom sweetness and light, and all that in human nature is most humane, were eminent, — accompanying them on their voyage, and think what intolerable company Shakespeare and Virgil would have found them! In the same way let us judge the religious organizations which we see all around us. Do not let us deny the good and the happiness which they have accomplished; but do not let us fail to see clearly that their idea of human perfection is narrow and inadequate, and that the Dissidence of Dissent and the Protestantism of the Protestant religion will never bring humanity to its true goal. As I said with regard to wealth: Let us look at the life of those who live in and for it, — so I say with regard to the religious organizations. Look at the life imaged in such a newspaper as the *Nonconformist*, — a life of jealousy of the Establishment, disputes, tea-meetings, openings of chapels, sermons; and then think of it as an ideal of a human life completing itself on all sides, and aspiring with all its organs after sweetness, light, and perfection!

Another newspaper, representing, like the *Nonconformist*, one of the religious organizations of this country, was a short time ago giving an account of the crowd at Epsom on the Derby day, and of all the vice and hideousness which was to be seen in that crowd; and then the writer turned suddenly round upon Professor Huxley, and asked him how he proposed to cure all this vice and hideousness without religion. I confess I felt disposed to ask the asker this question: and how do you propose to cure it with such a religion as yours? How is the ideal of a life so unlovely, so unattractive, so incomplete, so narrow, so far removed from a true and satisfying ideal of human perfection, as is the life of your religious organization as you yourself image it, to conquer and transform all this vice and hideousness? Indeed, the strongest

plea for the study of perfection as pursued by culture, the clearest proof of the actual inadequacy of the idea of perfection held by the religious organizations, — expressing, as I have said, the most widespread effort which the human race has yet made after perfection, — is to be found in the state of our life and society with these in possession of it, and having been in possession of it I know not how many hundred years. We are all of us included in some religious organization or other; we all call ourselves, in the sublime and aspiring language of religion which I have before noticed, *children of God*. Children of God; — it is an immense pretension! — and how are we to justify it? By the works which we do, and the words which we speak. And the work which we collective children of God do, our grand center of life, our *city* which we have builded for us to dwell in, is London! London, with its unutterable external hideousness, and with its internal canker of *publice egestas*, *privatim opulentia*,[1] — to use the words which Sallust puts into Cato's mouth about Rome, — unequalled in the world! The word, again, which we children of God speak, the voice which most hits our collective thought, the newspaper with the largest circulation in England, nay, with the largest circulation in the whole world, is the *Daily Telegraph!* I say that when our religious organizations, — which I admit to express the most considerable effort after perfection that our race has yet made, — land us in no better result than this, it is high time to examine carefully their idea of perfection, to see whether it does not leave out of account sides and forces of human nature which we might turn to great use; whether it would not be more operative if it were more complete. And I say that the English reliance on our religious organizations and on their ideas of human perfection just as they stand, is like our reliance on freedom, on muscular Christianity, on population, on coal, on wealth, — mere belief in machinery, and unfruitful; and that it is wholesomely counteracted by culture, bent on seeing things as they are, and on drawing the human race onwards to a more complete, a harmonious perfection.

[1] Public want and private wealth. — *Editors.*

Culture, however, shows its single-minded love of perfection, its desire simply to make reason and the will of God prevail, its freedom from fanaticism, by its attitude towards all this machinery, even while it insists that it *is* machinery. Fanatics, seeing the mischief men do themselves by their blind belief in some machinery or other, — whether it is wealth and industrialism, or whether it is the cultivation of bodily strength and activity, or whether it is a political organization, — or whether it is a religious organization, — oppose with might and main the tendency to this or that political and religious organization, or to games and athletic exercises, or to wealth and industrialism, and try violently to stop it. But the flexibility which sweetness and light give, and which is one of the rewards of culture pursued in good faith, enables a man to see that a tendency may be necessary, and even, as a preparation for something in the future, salutary, and yet that the generations or individuals who obey this tendency are sacrificed to it, that they fall short of the hope of perfection by following it; and that its mischiefs are to be criticized, lest it should take too firm a hold and last after it has served its purpose.

Mr. Gladstone well pointed out, in a speech at Paris, — and others have pointed out the same thing, — how necessary is the present great movement towards wealth and industrialism, in order to lay broad foundations of material well-being for the society of the future. The worst of these justifications is that they are generally addressed to the very people engaged, body and soul, in the movement in question; at all events, that they are always seized with the greatest avidity by these people, and taken by them as quite justifying their life; and that thus they tend to harden them in their sins. Now, culture admits the necessity of the movement towards fortune-making and exaggerated industrialism, readily allows that the future may derive benefit from it; but insists, at the same time, that the passing generations of industrialists, — forming, for the most part, the stout main body of Philistinism, — are sacrificed to it. In the same way, the result of all the games and sports which occupy the pass-

ing generation of boys and young men may be the establishment of a better and sounder physical type for the future to work with. Culture does not set itself against the games and sports; it congratulates the future, and hopes it will make a good use of its improved physical basis; but it points out that our passing generation of boys and young men is, meantime, sacrificed. Puritanism was perhaps necessary to develop the moral fiber of the English race, Nonconformity to break the yoke of ecclesiastical domination over men's minds and to prepare the way for freedom of thought in the distant future; still, culture points out that the harmonious perfection of generations of Puritans and Nonconformists has been, in consequence, sacrificed. Freedom of speech may be necessary for the society of the future, but the young lions of the *Daily Telegraph* in the meanwhile are sacrificed. A voice for every man in his country's government may be necessary for the society of the future, but meanwhile Mr. Beales and Mr. Bradlaugh are sacrificed.

Oxford, the Oxford of the past, has many faults; and she has heavily paid for them in defeat, in isolation, in want of hold upon the modern world. Yet we in Oxford, brought up amidst the beauty and sweetness of that beautiful place, have not failed to seize one truth, — the truth that beauty and sweetness are essential characters of a complete human perfection. When I insist on this, I am all in the faith and tradition of Oxford. I say boldly that this, our sentiment for beauty and sweetness, our sentiment against hideousness and rawness, has been at the bottom of our attachment to so many beaten causes, of our opposition to so many triumphant movements. And the sentiment is true, and has never been wholly defeated, and has shown its power even in its defeat. We have not won our political battles, we have not carried our main points, we have not stopped our adversaries' advance, we have not marched victoriously with the modern world; but we have told silently upon the mind of the country, we have prepared currents of feeling which sap our adversaries' position when it seems gained, we have kept up our own communications with the future. Look at the course of the

great movement[1] which shook Oxford to its center some thirty years ago! It was directed, as any one who reads Dr. Newman's *Apology*[2] may see, against what in one word may be called "Liberalism." Liberalism prevailed; it was the appointed force to do the work of the hour; it was necessary, it was inevitable, that it should prevail. The Oxford movement was broken, it failed; our wrecks are scattered on every shore: —

Quæ regio in terris nostri non plena laboris?

But what was it, this liberalism, as Dr. Newman saw it, and as it really broke the Oxford movement? It was the great middle-class liberalism, which had for the cardinal points of its belief the Reform Bill of 1832, and local self-government, in politics; in the social sphere, free trade, unrestricted competition, and the making of large industrial fortunes; in the religious sphere, the Dissidence of Dissent and the Protestantism of the Protestant religion. I do not say that other and more intelligent forces than this were not opposed to the Oxford movement: but this was the force which really beat it; this was the force which Dr. Newman felt himself fighting with; this was the force which till only the other day seemed to be the paramount force in this country, and to be in possession of the future; this was the force whose achievements fill Mr. Lowe with such inexpressible admiration, and whose rule he was so horror-struck to see threatened. And where is this great force of Philistinism now? It is thrust into the second rank, it is become a power of yesterday, it has lost the future. A new power has suddenly appeared, a power which it is impossible yet to judge fully, but which is certainly a wholly different force from middle-class liberalism; different in its cardinal points of belief, different in its tendencies in every sphere. It

[1] The Oxford or Tractarian Movement, which began at Oxford in 1833 under the leadership of John Henry (afterwards Cardinal) Newman, and John Keble, had as its object the intensifying of religious faith and the revival of ecclesiastical and ceremonial tradition in the Church of England. — *Editors.*

[2] Newman's *Apologia pro Vita Sua,* an explanation of his conversion to the Roman Church. — *Editors.*

loves and admires neither the legislation of middle-class Parliaments, nor the local self-government of middle-class vestries, nor the unrestricted competition of middle-class industrialists, nor the Dissidence of middle-class Dissent and the Protestantism of middle-class Protestant religion. I am not now praising this new force, or saying that its own ideals are better; all I say is, that they are wholly different. And who will estimate how much the currents of feeling created by Dr. Newman's movements, the keen desire for beauty and sweetness which it nourished, the deep aversion it manifested to the hardness and vulgarity of middle-class liberalism, the strong light it turned on the hideous and grotesque illusions of middle-class Protestantism, — who will estimate how much all these contributed to swell the tide of secret dissatisfaction which has mined the ground under the self-confident liberalism of the last thirty years, and has prepared the way for its sudden collapse and supersession? It is in this manner that the sentiment of Oxford for beauty and sweetness conquers, and in this manner long may it continue to conquer!

In this manner it works to the same end as culture, and there is plenty of work for it yet to do. I have said that the new and more democratic force which is now superseding our old middle-class liberalism cannot yet be rightly judged. It has its main tendencies still to form. We hear promises of its giving us administrative reform, law reform, reform of education, and I know not what; but those promises come rather from its advocates, wishing to make a good plea for it and to justify it for superseding middle-class liberalism, than from clear tendencies which it has itself yet developed. But meanwhile it has plenty of well-intentioned friends against whom culture may with advantage continue to uphold steadily its ideal of human perfection; that this is *an inward spiritual activity, having for its characters increased sweetness, increased light, increased life, increased sympathy.* Mr. Bright, who has a foot in both worlds, the world of middle-class liberalism and the world of democracy, but who brings most of his ideas from the world of middle-class liberalism in which he was bred, always inclines to inculcate that faith in machinery to

which, as we have seen, Englishmen are so prone, and which has been the bane of middle-class liberalism. He complains with a sorrowful indignation of people who "appear to have no proper estimate of the value of the franchise"; he leads his disciples to believe, — what the Englishman is always too ready to believe,— that the having a vote, like the having a large family, or a large business, or large muscles, has in itself some edifying and perfecting effect upon human nature. Or else he cries out to the democracy, — "the men," as he calls them, "upon whose shoulders the greatness of England rests," — he cries out to them: "See what you have done! I look over this country and see the cities you have built, the railroads you have made, the manufactures you have produced, the cargoes which freight the ships of the greatest mercantile navy the world has ever seen! I see that you have converted by your labors what was once a wilderness, these islands, into a fruitful garden; I know that you have created this wealth, and are a nation whose name is a word of power throughout all the world." Why, this is just the very style of laudation with which Mr. Roebuck or Mr. Lowe debauches the minds of the middle classes, and makes such Philistines of them. It is the same fashion of teaching a man to value himself not on what he *is*, not on his progress in sweetness and light, but on the number of the railroads he has constructed, or the bigness of the tabernacle he has built. Only the middle classes are told they have done it all with their energy, self-reliance, and capital, and the democracy are told they have done it all with their hands and sinews. But teaching the democracy to put its trust in achievements of this kind is merely training them to be Philistines to take the place of the Philistines whom they are superseding; and they too, like the middle class, will be encouraged to sit down at the banquet of the future without having on a wedding garment, and nothing excellent can then come from them. Those who know their besetting faults, those who have watched them and listened to them, or those who will read the instructive account recently given of them by one of themselves, the *Journeyman Engineer*, will agree that the idea which

culture sets before us of perfection, — an increased spiritual activity, having for its characters increased sweetness, increased light, increased life, increased sympathy, — is an idea which the new democracy needs far more than the idea of the blessedness of the franchise or the wonderfulness of its own industrial performances.

Other well-meaning friends of this new power are for leading it, not in the old ruts of middle-class Philistinism, but in ways which are naturally alluring to the feet of democracy, though in this country they are novel and untried ways. I may call them the ways of Jacobinism.[1] Violent indignation with the past, abstract systems of renovation applied wholesale, a new doctrine drawn up in black and white for elaborating down to the very smallest details a rational society for the future, — these are the ways of Jacobinism. Mr. Frederic Harrison and other disciples of Comte,[2] — one of them, Mr. Congreve, is an old acquaintance of mine and I am glad to have an opportunity of publicly expressing my respect for his talents and character, — are among the friends of democracy who are for leading it in paths of this kind. Mr. Frederic Harrison is very hostile to culture, and from a natural enough motive; for culture is the eternal opponent of the two things which are the signal marks of Jacobinism, — its fierceness, and its addiction to an abstract system. Culture is always assigning to system-makers and systems a smaller share in the bent of human destiny than their friends like. A current in people's minds sets towards new ideas; people are dissatisfied with their old narrow stock of Philistine ideas, Anglo-Saxon ideas, or any other; and some man, some Bentham or Comte, who has the real merit of having early and strongly felt and helped the new current, but who brings plenty of narrowness and mistakes of his own into his feeling and help of it, is credited with being the author of the whole current, the fit person to be intrusted with its regulation and to guide the human race.

[1] Violent radicalism. The Jacobin party played an aggressive part in the French Revolution. — *Editors.*

[2] Auguste Comte, the founder of the "Positivist" philosophy, who paid an exalted deference to the importance of public opinion. — *Editors.*

The excellent German historian of the mythology of Rome, Preller, relating the introduction at Rome under the Tarquins of the worship of Apollo, the god of light, healing, and reconciliation, will have us observe that it was not so much the Tarquins who brought to Rome the new worship of Apollo, as a current in the mind of the Roman people which set powerfully at that time towards a new worship of this kind, and away from the old run of Latin and Sabine religious ideas. In a similar way, culture directs our attention to the natural current there is in human affairs, and to its continual working, and will not let us rivet our faith upon any one man and his doings. It makes us see not only his good side, but also how much in him was of necessity limited and transient; nay, it even feels a pleasure, a sense of an increased freedom and of an ampler future, in so doing.

I remember, when I was under the influence of a mind to which I feel the greatest obligations, the mind of a man who was the very incarnation of sanity and clear sense, a man the most considerable, it seems to me, whom America has yet produced, — Benjamin Franklin, — I remember the relief with which, after long feeling the sway of Franklin's imperturbable common-sense, I came upon a project of his for a new version of the Book of Job to replace the old version, the style of which, says Franklin, has become obsolete, and thence less agreeable. "I give," he continues, "a few verses, which may serve as a sample of the kind of version I would recommend." We all recollect the famous verse in our translation: "Then Satan answered the Lord and said: 'Doth Job fear God for nought?'" Franklin makes this: "Does your Majesty imagine that Job's good conduct is the effect of mere personal attachment and affection?" I well remember how, when first I read that, I drew a deep breath of relief, and said to myself: "After all, there is a stretch of humanity beyond Franklin's victorious good sense!" So, after hearing Bentham cried loudly up as the renovator of modern society, and Bentham's mind and ideas proposed as the rulers of our future, I open the *Deontology*. There I read: "While Xenophon was writing his history and Euclid teaching geom-

etry, Socrates and Plato were talking nonsense under pretense of talking wisdom and morality. This morality of theirs consisted in words; this wisdom of theirs was the denial of matters known to every man's experience." From the moment of reading that, I am delivered from the bondage of Bentham! the fanaticism of his adherents can touch me no longer. I feel the inadequacy of his mind and ideas for supplying the rule of human society, for perfection.

Culture tends always thus to deal with the men of a system, of disciples, of a school; with men like Comte, or the late Mr. Buckle, or Mr. Mill.[1] However much it may find to admire in these personages, or in some of them, it nevertheless remembers the text: "Be not ye called Rabbi!" and it soon passes on from any Rabbi. But Jacobinism loves a Rabbi; it does not want to pass on from its Rabbi in pursuit of a future and still unreached perfection; it wants its Rabbi and its ideas to stand for perfection, that they may with the more authority recast the world; and for Jacobinism, therefore, culture, — eternally passing onwards and seeking, — is an impertinence and an offense. But culture, just because it resists this tendency of Jacobinism to impose on us a man with limitations and errors of his own along with the true ideas of which he is the organ, really does the world and Jacobinism itself a service.

So, too, Jacobinism, in its fierce hatred of the past and of those whom it makes liable for the sins of the past, cannot away with the inexhaustible indulgence proper to culture, the consideration of circumstances, the severe judgment of actions joined to the merciful judgment of persons. "The man of culture is in politics," cries Mr. Frederic Harrison, "one of the poorest mortals alive!" Mr. Frederic Harrison wants to be doing business, and he complains that the man of culture stops him with a "turn for small fault-finding, love of selfish ease, and indecision in action." Of what use is culture, he asks, except for "a critic of new books or a professor of *belles-lettres?*" Why, it is of use because, in presence of the fierce exasperation which breathes, or rather, I

[1] See p. 98. — *Editors.*

may say, hisses through the whole production in which Mr. Frederic Harrison asks that question, it reminds us that the perfection of human nature is sweetness and light. It is of use because, like religion, — that other effort after perfection, — it testifies that, where bitter envying and strife are, there is confusion and every evil work.

The pursuit of perfection, then, is the pursuit of sweetness and light. He who works for sweetness and light, works to make reason and the will of God prevail. He who works for machinery, he who works for hatred, works only for confusion. Culture looks beyond machinery, culture hates hatred; culture has one great passion, the passion for sweetness and light. It has one even yet greater! — the passion for making them *prevail*. It is not satisfied till we *all* come to a perfect man; it knows that the sweetness and light of the few must be imperfect until the raw and unkindled masses of humanity are touched with sweetness and light. If I have not shrunk from saying that we must work for sweetness and light, so neither have I shrunk from saying that we must have a broad basis, must have sweetness and light for as many as possible. Again and again I have insisted how those are the happy moments of humanity, how those are the marking epochs of a people's life, how those are the flowering times for literature and art and all the creative power of genius, when there is a *national* glow of life and thought, when the whole of society is in the fullest measure permeated by thought, sensible to beauty, intelligent and alive. Only it must be *real* thought and *real* beauty; *real* sweetness and *real* light. Plenty of people will try to give the masses, as they call them, an intellectual food prepared and adapted in the way they think proper for the actual condition of the masses. The ordinary popular literature is an example of this way of working on the masses. Plenty of people will try to indoctrinate the masses with the set of ideas and judgments constituting the creed of their own profession or party. Our religious and political organizations give an example of this way of working on the masses. I condemn neither way; but culture works differently. It does

not try to teach down to the level of inferior classes; it does not try to win them for this or that sect of its own, with ready-made judgments and watchwords. It seeks to do away with classes; to make the best that has been thought and known in the world current everywhere; to make all men live in an atmosphere of sweetness and light, where they may use ideas, as it uses them itself, freely, — nourished, and not bound by them.

This is the *social idea;* and the men of culture are the true apostles of equality. The great men of culture are those who have had a passion for diffusing, for making prevail, for carrying from one end of society to the other, the best knowledge, the best ideas of their time; who have labored to divest knowledge of all that was harsh, uncouth, difficult, abstract, professional, exclusive; to humanize it, to make it efficient outside the clique of the cultivated and learned, yet still remaining the *best* knowledge and thought of the time, and a true source, therefore, of sweetness and light. Such a man was Abelard in the Middle Ages, in spite of all his imperfections; and thence the boundless emotion and enthusiasm which Abelard excited. Such were Lessing and Herder in Germany, at the end of the last century; and their services to Germany were in this way inestimably precious. Generations will pass, and literary monuments will accumulate, and works far more perfect than the works of Lessing and Herder will be produced in Germany; and yet the names of these two men will fill a German with a reverence and enthusiasm such as the names of the most gifted masters will hardly awaken. And why? Because they *humanized* knowledge; because they broadened the basis of life and intelligence; because they worked powerfully to diffuse sweetness and light, to make reason and the will of God prevail. With Saint Augustine they said: "Let us not leave thee alone to make in the secret of thy knowledge, as thou didst before the creation of the firmament, the division of light from darkness; let the children of thy spirit, placed in their firmament, make their light shine upon the earth, mark the division of night and day, and announce the revolution of the times; for the old order is passed,

and the new arises; the night is spent, the day is come forth; and thou shalt crown the year with thy blessing, when thou shalt send forth laborers into thy harvest sown by other hands than theirs; when thou shalt send forth new laborers to new seed-times, whereof the harvest shall be not yet."

11

SCIENCE AND CULTURE

Thomas Henry Huxley

[Thomas Henry Huxley (1825–1895) is to be remembered among the great men of the Victorian era who contributed most to human progress and knowledge. As a professional scientist he made invaluable contributions to research; as a champion of Darwinism he greatly strengthened the foundations of the evolutionary theory; as an educator he completely revolutionized existing methods of scientific teaching; and as a public lecturer he did much to popularize the facts of modern science. Most of his writing centers in his two chief interests, scientific exposition and the problem of education, and is characterized by a directness of thought and a lucidity of style perhaps unsurpassed in the whole range of English prose. A typical Darwinian essay appears elsewhere in this volume.

The following lecture on *Science and Culture* has been selected as expressly directed against the well-known educational views of Matthew Arnold. Huxley's arguments for the cultural and educational value of science as opposed to that of the humanities, it may be noticed, are reiterated by present-day champions of science in discussions over this still vexing and far from settled question. A classical education, it is maintained, while an excellent thing for some, is a waste of time for the practical minded; and, moreover, real culture may be acquired just as effectively by an exclusively scientific education as by an equally restricted literary education. For the continuation of this debate between Huxley and Arnold, the student is referred to Arnold's *Literature and Science* (*Discourses in America*, 1885).

Science and Culture was delivered as an address at the opening of Sir Josiah Mason's Science College, at Birmingham, October 1, 1880.]

Six years ago, as some of my present hearers may remember, I had the privilege of addressing a large assemblage of the inhabitants of this city, who had gathered together to do honor to the memory of their famous townsman, Joseph Priestley; and, if any satisfaction attaches to posthumous glory, we may

hope that the manes of the burnt-out philosopher were then finally appeased.

No man, however, who is endowed with a fair share of common sense, and not more than a fair share of vanity, will identify either contemporary or posthumous fame with the highest good; and Priestley's life leaves no doubt that he, at any rate, set a much higher value upon the advancement of knowledge, and the promotion of that freedom of thought which is at once the cause and the consequence of intellectual progress.

Hence I am disposed to think that, if Priestley could be amongst us to-day, the occasion of our meeting would afford him even greater pleasure than the proceedings which celebrated the centenary of his chief discovery. The kindly heart would be moved, the high sense of social duty would be satisfied, by the spectacle of well-earned wealth, neither squandered in tawdry luxury and vainglorious show, nor scattered with the careless charity which blesses neither him that gives nor him that takes, but expended in the execution of a well-considered plan for the aid of present and future generations of those who are willing to help themselves.

We shall all be of one mind thus far. But it is needful to share Priestley's keen interest in physical science; and to have learned, as he had learned, the value of scientific training in fields of inquiry apparently far remote from physical science; in order to appreciate, as he would have appreciated, the value of the noble gift which Sir Josiah Mason has bestowed upon the inhabitants of the Midland district.

For us children of the nineteenth century, however, the establishment of a college under the conditions of Sir Josiah Mason's Trust, has a significance apart from any which it could have possessed a hundred years ago. It appears to be an indication that we are reaching the crisis of the battle, or rather of the long series of battles, which have been fought over education in a campaign which began long before Priestley's time, and will probably not be finished just yet.

In the last century, the combatants were the champions of

ancient literature, on the one side, and those of modern literature on the other; but, some thirty years[1] ago, the contest became complicated by the appearance of a third army, ranged round the banner of Physical Science.

I am not aware that any one has authority to speak in the name of this new host. For it must be admitted to be somewhat of a guerilla force, composed largely of irregulars, each of whom fights pretty much for his own hand. But the impressions of a full private, who has seen a good deal of service in the ranks, respecting the present position of affairs and the conditions of a permanent peace, may not be devoid of interest; and I do not know that I could make a better use of the present opportunity than by laying them before you.

From the time that the first suggestion to introduce physical science into ordinary education was timidly whispered, until now, the advocates of scientific education have met with opposition of two kinds. On the one hand, they have been poohpoohed by the men of business who pride themselves on being the representatives of practicality; while, on the other hand, they have been excommunicated by the classical scholars, in their capacity of Levites in charge of the ark of culture and monopolists of liberal education.

The practical men believed that the idol whom they worship — rule of thumb — has been the source of the past prosperity, and will suffice for the future welfare of the arts and manufactures. They were of opinion that science is speculative rubbish; that theory and practice have nothing to do with one another; and that the scientific habit of mind is an impediment, rather than an aid, in the conduct of ordinary affairs.

I have used the past tense in speaking of the practical men — for although they were very formidable thirty years ago, I am not sure that the pure species has not been extirpated. In fact,

[1] The advocacy of the introduction of physical science into general education by George Combe and others commenced a good deal earlier; but the movement had acquired hardly any practical force before the time to which I refer.

so far as mere argument goes, they have been subjected to such a *feu d'enfer* that it is a miracle if any have escaped. But I have remarked that your typical practical man has an unexpected resemblance to one of Milton's angels. His spiritual wounds, such as are inflicted by logical weapons, may be as deep as a well and as wide as a church door, but beyond shedding a few drops of ichor, celestial or otherwise, he is no whit the worse. So, if any of these opponents be left, I will not waste time in vain repetition of the demonstrative evidence of the practical value of science; but knowing that a parable will sometimes penetrate where syllogisms fail to effect an entrance, I will offer a story for their consideration.

Once upon a time, a boy, with nothing to depend upon but his own vigorous nature, was thrown into the thick of the struggle for existence in the midst of a great manufacturing population. He seems to have had a hard fight, inasmuch as, by the time he was thirty years of age, his total disposable funds amounted to twenty pounds. Nevertheless, middle life found him giving proof of his comprehension of the practical problems he had been roughly called upon to solve, by a career of remarkable prosperity.

Finally, having reached old age, with its well-earned surroundings of "honor, troops of friends," the hero of my story bethought himself of those who were making a like start in life, and how he could stretch out a helping hand to them.

After long and anxious reflection this successful practical man of business could devise nothing better than to provide them with the means of obtaining "sound, extensive, and practical scientific knowledge." And he devoted a large part of his wealth and five years of incessant work to this end.

I need not point the moral of a tale which, as the solid and spacious fabric of the Scientific College assures us, is no fable, nor can anything which I can say intensify the force of this practical answer to practical objections.

We may take it for granted, then, that, in the opinion of those best qualified to judge, the diffusion of thorough scientific education is an absolutely essential condition of industrial prog-

ress; and that the College which has been opened to-day will confer an inestimable boon upon those whose livelihood is to be gained by the practice of the arts and manufactures of the district.

The only question worth discussion is, whether the conditions, under which the work of the College is to be carried out, are such as to give it the best possible chance of achieving permanent success.

Sir Josiah Mason, without doubt most wisely, has left very large freedom of action to the trustees, to whom he proposes ultimately to commit the administration of the College, so that they may be able to adjust its arrangements in accordance with the changing conditions of the future. But, with respect to three points, he has laid most explicit injunctions upon both administrators and teachers.

Party politics are forbidden to enter into the minds of either, so far as the work of the College is concerned; theology is as sternly banished from its precincts; and finally, it is especially declared that the College shall make no provision for "mere literary instruction and education."

It does not concern me at present to dwell upon the first two injunctions any longer than may be needful to express my full conviction of their wisdom. But the third prohibition brings us face to face with those other opponents of scientific education, who are by no means in the moribund condition of the practical man, but alive, alert, and formidable.

It is not impossible that we shall hear this express exclusion of "literary instruction and education" from a College which, nevertheless, professes to give a high and efficient education, sharply criticized. Certainly the time was that the Levites of culture would have sounded their trumpets against its walls as against an educational Jericho.

How often have we not been told that the study of physical science is incompetent to confer culture; that it touches none of the higher problems of life; and, what is worse, that the continual devotion to scientific studies tends to generate a narrow and

bigoted belief in the applicability of scientific methods to the search after truth of all kinds. How frequently one has reason to observe that no reply to a troublesome argument tells so well as calling its author a "mere scientific specialist." And, as I am afraid that it is not permissible to speak of this form of opposition to scientific education in the past tense, may we not expect to be told that this, not only omission, but prohibition, of "mere literary instruction and education" is a patent example of scientific narrow-mindedness?

I am not acquainted with Sir Josiah Mason's reasons for the action which he has taken; but if, as I apprehend is the case, he refers to the ordinary classical course of our schools and universities by the name of "mere literary instruction and education," I venture to offer sundry reasons of my own in support of that action.

For I hold very strongly by two convictions: the first is, that neither the discipline nor the subject matter of classical education is of such direct value to the student of physical science as to justify the expenditure of valuable time upon either; and the second is, that for the purpose of attaining real culture, an exclusively scientific education is at least as effectual as an exclusively literary education.

I need hardly point out to you that these opinions, especially the latter, are diametrically opposed to those of the great majority of educated Englishmen, influenced as they are by school and university traditions. In their belief, culture is obtainable only by a liberal education; and a liberal education is synonymous, not merely with education and instruction in literature, but in one particular form of literature; namely, that of Greek and Roman antiquity. They hold that the man who has learned Latin and Greek, however little, is educated; while he who is versed in other branches of knowledge, however deeply, is a more or less respectable specialist, not admissable into the cultured caste. The stamp of the educated man, the University degree, is not for him.

I am too well acquainted with the generous catholicity of

spirit, the true sympathy with scientific thought, which pervades the writings of our chief apostle of culture, to identify him with these opinions; and yet one may cull from one and another of those epistles to the Philistines,[1] which so much delight all who do not answer to that name, sentences which lend them some support.

Mr. Arnold tells us that the meaning of culture is "to know the best that has been thought and said in the world." It is the criticism of life contained in literature. That criticism regards "Europe as being, for intellectual and spiritual purposes, one great confederation, bound to a joint action and working to a common result; and whose members have, for their common outfit, a knowledge of Greek, Roman, and Eastern antiquity, and of one another. Special, local, and temporary advantages being put out of account, that modern nation will in the intellectual and spiritual sphere make most progress, which most thoroughly carries out this program. And what is that but saying that we too all of us, as individuals, the more thoroughly we carry it out, shall make the more progress?" [2]

We have here to deal with two distinct propositions. The first, that a criticism of life is the essence of culture; the second, that literature contains the materials which suffice for the construction of such a criticism.

I think that we must all assent to the first proposition. For culture certainly means something quite different from learning or technical skill. It implies the possession of an ideal, and the habit of critically estimating the value of things by comparison with a theoretic standard. Perfect culture should supply a complete theory of life, based upon a clear knowledge alike of its possibilities and of its limitations.

But we may agree to all this, and yet strongly dissent from the assumption that literature alone is competent to supply this knowledge. After having learnt all that Greek, Roman, and

[1] See p. 9. — *Editors.*

[2] *The Function of Criticism at the Present Time;* in *Essays in Criticism, First Series* (Macmillan), p. 39. — *Editors.*

Eastern antiquity have thought and said, and all that modern literatures have to tell us, it is not self-evident that we have laid a sufficiently broad and deep foundation for that criticism of life that constitutes culture.

Indeed, to any one acquainted with the scope of physical science, it is not at all evident. Considering progress only in the "intellectual and spiritual sphere," I find myself wholly unable to admit that either nations or individuals will really advance, if their common outfit draws nothing from the stores of physical science. I should say that an army, without weapons of precision, and with no particular base of operations, might more hopefully enter upon a campaign on the Rhine, than a man, devoid of a knowledge of what physical science has done in the last century, upon a criticism of life.

When a biologist meets with an anomaly, he instinctively turns to the study of development to clear it up. The rationale of contradictory opinions may with equal confidence be sought in history.

It is, happily, no new thing that Englishmen should employ their wealth in building and endowing institutions for educational purposes. But, five or six hundred years ago, deeds of foundation expressed or implied conditions as nearly as possible contrary to those which have been thought expedient by Sir Josiah Mason. That is to say, physical science was practically ignored, while a certain literary training was enjoined as a means to the acquirement of knowledge which was essentially theological.

The reason of this singular contradiction between the actions of men alike animated by a strong and disinterested desire to promote the welfare of their fellows, is easily discovered.

At that time, in fact, if any one desired knowledge beyond such as could be obtained by his own observation, or by common conversation, his first necessity was to learn the Latin language, inasmuch as all the higher knowledge of the western world was contained in works written in that language. Hence, Latin grammar, with logic and rhetoric, studied through Latin, were

the fundamentals of education. With respect to the substance of the knowledge imparted through this channel, the Jewish and Christian Scriptures, as interpreted and supplemented by the Romish Church, were held to contain a complete and infallibly true body of information.

Theological dicta were, to the thinkers of those days, that which the axioms and definitions of Euclid are to the geometers of these. The business of the philosophers of the Middle Ages was to deduce from the data furnished by the theologians, conclusions in accordance with ecclesiastical decrees. They were allowed the high privilege of showing, by logical process, how and why that which the Church said was true, must be true. And if their demonstrations fell short of or exceeded this limit, the Church was maternally ready to check their aberrations, if need be, by the help of the secular arm.

Between the two, our ancestors were furnished with a compact and complete criticism of life. They were told how the world began, and how it would end; they learned that all material existence was but a base and insignificant blot upon the fair face of the spiritual world, and that nature was, to all intents and purposes, the playground of the devil; they learned that the earth is the center of the visible universe, and that man is the cynosure of things terrestrial; and more especially is it inculcated that the course of nature had no fixed order, but that it could be, and constantly was, altered by the agency of innumerable spiritual beings, good and bad, according as they were moved by the deeds and prayers of men. The sum and substance of the whole doctrine was to produce the conviction that the only thing really worth knowing in this world was how to secure that place in a better which, under certain conditions, the Church promised.

Our ancestors had a living belief in this theory of life, and acted upon it in their dealings with education, as in all other matters. Culture meant saintliness — after the fashion of the saints of those days; the education that led to it was, of necessity, theological; and the way to theology lay through Latin.

That the study of nature — further than was requisite for the

satisfaction of everyday wants — should have any bearing on human life was far from the thoughts of men thus trained. Indeed, as nature had been cursed for man's sake, it was an obvious conclusion that those who meddled with nature were likely to come into pretty close contact with Satan. And, if any born scientific investigator followed his instincts, he might safely reckon upon earning the reputation, and probably upon suffering the fate, of a sorcerer.

Had the western world been left to itself in Chinese isolation, there is no saying how long this state of things might have endured. But, happily, it was not left to itself. Even earlier than the thirteenth century, the development of Moorish civilization in Spain and the great movement of the Crusades had introduced the leaven which, from that day to this, has never ceased to work. At first, through the intermediation of Arabic translations, afterwards, by the study of the originals, the western nations of Europe became acquainted with the writings of the ancient philosophers and poets, and, in time, with the whole of the vast literature of antiquity.

Whatever there was of high intellectual aspiration or dominant capacity in Italy, France, Germany, and England, spent itself for centuries in taking possession of the rich inheritance left by the dead civilizations of Greece and Rome. Marvelously aided by the invention of printing, classical learning spread and flourished. Those who possessed it prided themselves on having attained the highest culture then within the reach of mankind.

And justly. For, saving Dante on his solitary pinnacle, there was no figure in modern literature at the time of the Renascence to compare with the men of antiquity; there was no art to compete with their sculpture; there was no physical science but that which Greece had created. Above all, there was no other example of perfect intellectual freedom — of the unhesitating acceptance of reason as the sole guide of truth and the supreme arbiter of conduct.

The new learning necessarily soon exerted a profound influ-

ence upon education. The language of the monks and schoolmen seemed little better than gibberish to scholars fresh from Virgil and Cicero, and the study of Latin was placed upon a new foundation. Moreover, Latin itself ceased to afford the sole key to knowledge. The student who sought the highest thought of antiquity, found only a second-hand reflection of it in Roman literature, and turned his face to the full light of the Greeks. And after a battle, not altogether dissimilar to that which is at present being fought over the teaching of physical science, the study of Greek was recognized as an essential element of all higher education.

Thus the Humanists,[1] as they were called, won the day; and the great reform which they effected was of incalculable service to mankind. But the Nemesis of all reformers is finality; and the reformers of education, like those of religion, fell into the profound, however common, error of mistaking the beginning for the end of the work of reformation.

The representatives of the Humanists, in the nineteenth century, take their stand upon classical education as the sole avenue to culture, as firmly as if we were still in the age of the Renascence. Yet, surely, the present intellectual relations of the modern and the ancient worlds are profoundly different from those which obtained three centuries ago. Leaving aside the existence of a great and characteristically modern literature, of modern painting, and, especially, of modern music, there is one feature of the present state of the civilized world which separates it more widely from the Renascence than the Renascence was separated from the Middle Ages.

This distinctive character of our own times lies in the vast and constantly increasing part which is played by natural knowledge. Not only is our daily life shaped by it, not only does the prosperity of millions of men depend upon it, but our whole theory of life has long been influenced, consciously or uncon-

[1] So named because they considered that human interests could be better promoted by the study of the ancient classics (*litterae humaniores*) than by the theology of the medieval churchmen. — *Editors*.

sciously, by the general conceptions of the universe, which have been forced upon us by physical science.

In fact, the most elementary acquaintance with the results of scientific investigation shows us that they offer a broad and striking contradiction to the opinions so implicitly credited and taught in the Middle Ages.

The notions of the beginning and the end of the world entertained by our forefathers are no longer credible. It is very certain that the earth is not the chief body in the material universe, and that the world is not subordinated to man's use. It is even more certain that nature is the expression of a definite order with which nothing interferes, and that the chief business of mankind is to learn that order and govern themselves accordingly. Moreover this scientific "criticism of life" presents itself to us with different credentials from any other. It appeals not to authority, nor to what anybody may have thought or said, but to nature. It admits that all our interpretations of natural fact are more or less imperfect and symbolic, and bids the learner seek for truth not among words but among things. It warns us that the assertion which outstrips evidence is not only a blunder but a crime.

The purely classical education advocated by the representatives of the Humanists in our day gives no inkling of all this. A man may be a better scholar than Erasmus, and know no more of the chief causes of the present intellectual fermentation than Erasmus did. Scholarly and pious persons, worthy of all respect, favor us with allocutions upon the sadness of the antagonism of science to the medieval way of thinking, which betray an ignorance of the first principles of scientific investigation, an incapacity for understanding what a man of science means by veracity, and an unconsciousness of the weight of established scientific truths, which is almost comical.

There is no great force in the *tu quoque*[1] argument, or else the advocates of scientific education might fairly enough retort upon the modern Humanists that they may be learned specialists, but

[1] "Thou too!" The retort which turns an adversary's argument against himself. — *Editors.*

that they possess no such sound foundation for a criticism of life as deserves the name of culture. And, indeed, if we were disposed to be cruel, we might urge that the Humanists have brought this reproach upon themselves, not because they are too full of the spirit of the ancient Greek, but because they lack it.

The period of the Renascence is commonly called that of the "Revival of Letters," as if the influences then brought to bear upon the mind of Western Europe had been wholly exhausted in the field of literature. I think it is very commonly forgotten that the revival of science, effected by the same agency, although less conspicuous, was not less momentous.

In fact, the few and scattered students of nature of that day picked up the clew to her secrets exactly as it fell from the hands of the Greeks a thousand years before. The foundations of mathematics were so well laid by them that our children learn their geometry from a book written for the schools of Alexandria two thousand years ago.[1] Modern astronomy is the natural continuation and development of the work of Hipparchus and of Ptolemy; modern physics of that of Democritus and of Archimedes; it was long before modern biological science outgrew the knowledge bequeathed to us by Aristotle, by Theophrastus, and by Galen.

We cannot know all the best thoughts and sayings of the Greeks unless we know what they thought about natural phenomena. We cannot fully apprehend their criticism of life unless we understand the extent to which that criticism was affected by scientific conceptions. We falsely pretend to be the inheritors of their culture unless we are penetrated, as the best minds among them were, with an unhesitating faith that the free employment of reason, in accordance with scientific method, is the sole method of reaching truth.

Thus I venture to think that the pretensions of our modern Humanists to the possession of the monoply of culture and to the exclusive inheritance of the spirit of antiquity must be abated, if not abandoned. But I should be very sorry that anything I

[1] Euclid's treatise on geometry. — *Editors.*

have said should be taken to imply a desire on my part to depreciate the value of classical education, as it might be and as it sometimes is. The native capacities of mankind vary no less than their opportunities; and while culture is one, the road by which one man may best reach it is wholly different from that which is most advantageous to another. Again, while scientific education is yet inchoate and tentative, classical education is thoroughly well organized upon the practical experience of generations of teachers. So that, given ample time for learning and destination for ordinary life, or for a literary career, I do not think that a young Englishman in search of culture can do better than follow the course usually marked out for him, supplementing its deficiencies by his own efforts.

But for those who mean to make science their serious occupation; or who intend to follow the profession of medicine; or who have to enter early upon the business of life; for all these, in my opinion, classical education is a mistake; and it is for this reason that I am glad to see "mere literary education and instruction" shut out from the curriculum of Sir Josiah Mason's College, seeing that its inclusion would probably lead to the introduction of the ordinary smattering of Latin and Greek.

Nevertheless, I am the last person to question the importance of genuine literary education, or to suppose that intellectual culture can be complete without it. An exclusively scientific training will bring about a mental twist as surely as an exclusively literary training. The value of the cargo does not compensate for a ship's being out of trim; and I should be very sorry to think that the Scientific College would turn out none but lopsided men.

There is no need, however, that such a catastrophe should happen. Instruction in English, French, and German is provided, and thus the three greatest literatures of the modern world are made accessible to the student.

French and German, and especially the latter language, are absolutely indispensable to those who desire full knowledge in any department of science. But even supposing that the knowl-

edge of these languages acquired is not more than sufficient for purely scientific purposes, every Englishman has, in his native tongue, an almost perfect instrument of literary expression; and, in his own literature, models of every kind of literary excellence. If an Englishman cannot get literary culture out of his Bible, his Shakespeare, his Milton, neither, in my belief, will the profoundest study of Homer and Sophocles, Virgil and Horace, give it to him.

Thus, since the constitution of the College makes sufficient provision for literary as well as for scientific education, and since artistic instruction is also contemplated, it seems to me that a fairly complete culture is offered to all who are willing to take advantage of it.

But I am not sure that at this point the "practical" man, scotched but not slain, may ask what all this talk about culture has to do with an Institution, the object of which is defined to be "to promote the prosperity of the manufactures and the industry of the country." He may suggest that what is wanted for this end is not culture, not even a purely scientific discipline, but simply a knowledge of applied science.

I often wish that this phrase, "applied science," had never been invented. For it suggests that there is a sort of scientific knowledge of direct practical use, which can be studied apart from another sort of scientific knowledge, which is of no practical utility, and which is termed "pure science." But there is no more complete fallacy than this. What people call applied science is nothing but the application of pure science to particular classes of problems. It consists of deductions from those general principles, established by reasoning and observation, which constitute pure science. No one can safely make these deductions until he has a firm grasp of the principles; and he can obtain that grasp only by personal experience of the operations of observation and of reasoning on which they are founded.

Almost all the processes employed in the arts and manufactures fall within the range either of physics or of chemistry. In order to improve them, one must thoroughly understand them; and no one has a chance of really understanding them, unless he

has obtained that mastery of principles and that habit of dealing with facts which is given by long-continued and well-directed purely scientific training in the physical and the chemical laboratory. So that there really is no question as to the necessity of purely scientific discipline, even if the work of the College were limited by the narrowest interpretation of its stated aims.

And, as to the desirableness of a wider culture than that yielded by science alone, it is to be recollected that the improvement of manufacturing processes is only one of the conditions which contribute to the prosperity of industry. Industry is a means and not an end; and mankind work only to get something which they want. What that something is depends partly on their innate, and partly on their acquired, desires.

If the wealth resulting from prosperous industry is to be spent upon the gratification of unworthy desires, if the increasing perfection of manufacturing processes is to be accompanied by an increasing debasement of those who carry them on, I do not see the good of industry and prosperity.

Now it is perfectly true that men's views of what is desirable depend upon their characters; and that the innate proclivities to which we give that name are not touched by any amount of instruction. But it does not follow that even mere intellectual education may not, to an indefinite extent, modify the practical manifestation of the characters of men in their actions, by supplying them with motives unknown to the ignorant. A pleasure-loving character will have pleasure of some sort; but, if you give him the choice, he may prefer pleasures which do not degrade him to those which do. And this choice is offered to every man who possesses in literary or artistic culture a never-failing source of pleasures, which are neither withered by age, nor staled by custom, nor embittered in the recollection by the pangs of self-reproach.

If the Institution opened to-day fulfills the intention of its founder, the picked intelligences among all classes of the population of this district will pass through it. No child born in Birmingham, henceforward, if he have the capacity to profit by the

opportunities offered to him, first in the primary and other schools and afterwards in the Scientific College, need fail to obtain, not merely the instruction, but the culture most appropriate to the conditions of his life.

Within these walls, the future employer and the future artisan may sojourn together for a while, and carry, through all their lives, the stamp of the influences then brought to bear upon them. Hence, it is not beside the mark to remind you, that the prosperity of industry depends not merely upon the improvement of manufacturing processes, not merely upon the ennobling of the individual character, but upon a third condition; namely, a clear understanding of the conditions of social life on the part of both the capitalist and the operative, and their agreement upon common principles of social action. They must learn that social phenomena are as much the expression of natural laws as any others; that no social arrangements can be permanent unless they harmonize with the requirements of social statics and dynamics; and that, in the nature of things, there is an arbiter whose decisions execute themselves.

But this knowledge is only to be obtained by the application of the methods of investigation adopted in physical researches to the investigation of the phenomena of society. Hence, I confess, I should like to see one addition made to the excellent scheme of education propounded for the College, in the shape of provision for the teaching of sociology. For though we are all agreed that party politics are to have no place in the instruction of the College; yet in this country, practically governed as it is now by universal suffrage, every man who does his duty must exercise political functions. And, if the evils which are inseparable from the good of political liberty are to be checked, if the perpetual oscillation of nations between anarchy and despotism is to be replaced by the steady march of self-restraining freedom; it will be because men will gradually bring themselves to deal with political, as they now deal with scientific, questions; to be as ashamed of undue haste and partisan prejudice in the one case as in the other; and to believe that the machinery of society is at

least as delicate as that of a spinning jenny, and as little likely to be improved by the meddling of those who have not taken the trouble to master the principles of its action.

In conclusion, I am sure that I make myself the mouthpiece of all present in offering to the venerable founder of the Institution, which now commences its beneficent career, our congratulations on the completion of his work; and in expressing the conviction, that the remotest posterity will point to it as a crucial instance of the wisdom which natural piety leads all men to ascribe to their ancestors.

III

THE ETHICS OF BELIEF

WILLIAM KINGDON CLIFFORD

[William Kingdon Clifford (1845–1879) was a celebrated mathematician whose intellectual versatility often led him into quite other fields of interest, as the title of this essay bears witness. He was educated at Cambridge, where he gained a reputation as a mathematical genius, besides winning distinction in literature and the classics. At the conclusion of his residence in 1871 he was appointed professor of applied mathematics at University College, London, a position he held with distinction until his premature death eight years later, when, although but thirty-four years of age, he was recognized as one of the leading scientific thinkers of his day.

While Clifford's classic contributions are to mathematical literature, the facile and original bent of his mind is well attested by his essays on metaphysics and philosophy and his habit of applying his mathematically thought out ideas to ethical and religious questions. *The Ethics of Belief*, which typifies the author's felicity of phrase and illustration as well as his power of subtle if not always convincing reasoning, may be regarded as a plea for an agnostic attitude in all matters of commonly accepted belief, religious or otherwise. In this connection it is interesting to note that Clifford as an undergraduate was a High Churchman, fond of experimenting in schemes for the reconciliation of science and dogma; but later under the influence of Darwin and Herbert Spencer he came to regard the possibility of such a reconciliation as highly improbable. Clifford's arguments for the rejection of all beliefs unsupported by "sufficient evidence" are answered by Professor James in the next essay.

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I. THE DUTY OF INQUIRY

A SHIPOWNER was about to send to sea an emigrant ship. He knew that she was old, and not overwell built at the first; that she had seen many seas and climes, and often had needed repairs. Doubts had been suggested to him that possibly she was not seaworthy. These doubts preyed upon his mind, and

made him unhappy; he thought that perhaps he ought to have her thoroughly overhauled and refitted, even though this should put him to great expense. Before the ship sailed, however, he succeeded in overcoming these melancholy reflections. He said to himself that she had gone safely through so many voyages and weathered so many storms, that it was idle to suppose that she would not come safely home from this trip also. He would put his trust in Providence, which could hardly fail to protect all these unhappy families that were leaving their fatherland to seek for better times elsewhere. He would dismiss from his mind all ungenerous suspicions about the honesty of builders and contractors. In such ways he acquired a sincere and comfortable conviction that his vessel was thoroughly safe and seaworthy; he watched her departure with a light heart, and benevolent wishes for the success of the exiles in their strange new home that was to be; and he got his insurance money when she went down in mid-ocean and told no tales.

What shall we say of him? Surely this, that he was verily guilty of the death of those men. It is admitted that he did sincerely believe in the soundness of his ship; but the sincerity of his conviction can in nowise help him, because *he had no right to believe on such evidence as was before him.* He had acquired his belief not by honestly earning it in patient investigation, but by stifling his doubts. And although in the end he may have felt so sure about it that he could not think otherwise, yet inasmuch as he had knowingly and willingly worked himself into that frame of mind, he must be held responsible for it.

Let us alter the case a little, and suppose that the ship was not unsound after all; that she made her voyage safely, and many others after it. Will that diminish the guilt of her owner? Not one jot. When an action is once done, it is right or wrong forever; no accidental failure of its good or evil fruits can possibly alter that. The man would not have been innocent; he would only have been not found out. The question of right or wrong has to do with the origin of his belief, not the matter of it; not what it was, but how he got it; not whether it turned out to be

true or false, but whether he had a right to believe on such evidence as was before him.

There was once an island in which some of the inhabitants professed a religion teaching neither the doctrine of original sin nor that of eternal punishment. A suspicion got abroad that the professors of this religion had made use of unfair means to get their doctrines taught to children. They were accused of wresting the laws of their country in such a way as to remove children from the care of their natural and legal guardians; and even of stealing them away and keeping them concealed from their friends and relations. A certain number of men formed themselves into a society for the purpose of agitating the public about this matter. They published grave accusations against individual citizens of the highest position and character, and did all in their power to injure these citizens in the exercise of their professions. So great was the noise they made, that a Commission was appointed to investigate the facts; but after the Commission had carefully inquired into all the evidence that could be got, it appeared that the accused were innocent. Not only had they been accused on insufficient evidence, but the evidence of their innocence was such as the agitators might easily have obtained, if they had attempted a fair inquiry. After these disclosures the inhabitants of that country looked upon the members of the agitating society, not only as persons whose judgment was to be distrusted, but also as no longer to be counted honorable men. For although they had sincerely and "conscientiously" believed in the charges they had made, yet *they had no right to believe on such evidence as was before them.* Their sincere convictions, instead of being honestly earned by patient inquiring, were stolen by listening to the voice of prejudice and passion.

Let us vary this case also, and suppose, other things remaining as before, that a still more accurate investigation proved the accused to have been really guilty. Would this make any difference in the guilt of the accusers? Clearly not; the question is not whether their belief was true or false, but whether they entertained it on wrong grounds. They would no doubt

say, "Now you see that we were right after all; next time perhaps you will believe us." And they might be believed, but they would not thereby become honorable men. They would not be innocent, they would only be not found out. Every one of them, if he chose to examine himself *in foro conscientiæ*,[1] would know that he had acquired and nourished a belief, when he had no right to believe on such evidence as was before him; and therein he would know that he had done a wrong thing.

It may be said, however, that in both of these supposed cases it is not the belief which is judged to be wrong, but the action following upon it. The shipowner might say, "I am perfectly certain that my ship is sound, but still I feel it is my duty to have her examined, before trusting the lives of so many people to her." And it might be said to the agitator, "However convinced you were of the justice of your cause and the truth of your convictions, you ought not to have made a public attack upon any man's character until you had examined the evidence on both sides with the utmost patience and care."

In the first place, let us admit that, so far as it goes, this view of the case is right and necessary; right, because even when a man's belief is so fixed that he cannot think otherwise, he still has a choice in regard to the action suggested by it, and so cannot escape the duty of investigating on the ground of the strength of his convictions; and necessary, because those who are not yet capable of controlling their feelings and thoughts must have a plain rule dealing with overt acts.

But this being premised as necessary, it becomes clear that it is not sufficient, and that our previous judgment is required to supplement it. For it is not possible so to sever the faith from the action it suggests as to condemn the one without condemning the other. No man holding a strong belief on one side of a question, or even wishing to hold a belief on one side, can investigate it with such fairness and completeness as if he were really in doubt and unbiased; so that the existence of a belief, not founded on fair inquiry, unfits a man for the performance of this necessary duty.

[1] Before the tribunal of his conscience. — *Editors.*

Nor is that truly a belief at all which has not some influence upon the actions of him who holds it. He who truly believes that which prompts him to an action has looked upon the action to lust after it; he has committed it already in his heart. If a belief is not realized immediately in open deeds, it is stored up for the guidance of the future. It goes to make a part of that aggregate of beliefs which is the link between sensation and action at every moment of all our lives, and which is so organized and compacted together that no part of it can be isolated from the rest, but every new addition modifies the structure of the whole. No real belief, however trifling and fragmentary it may seem, is ever truly insignificant; it prepares us to receive more of its like, confirms those which resembled it before, and weakens others; and so gradually it lays a stealthy train in our inmost thoughts, which may some day explode into overt action, and leave its stamp upon our character forever.

And no one man's belief is in any case a private matter which concerns himself alone. Our lives are guided by that general conception of the course of things which has been created by society for social purposes. Our words, our phrases, our forms and processes and modes of thought, are common property, fashioned and perfected from age to age; an heirloom, which every succeeding generation inherits as a precious deposit and a sacred trust, to be handed on to the next one, not unchanged, but enlarged and purified, with some clear marks of its proper handiwork. Into this, for good or ill, is woven every belief of every man who has speech of his fellows. An awful privilege, and an awful responsibility, that we should help to create the world in which posterity will live.

In the two supposed cases which have been considered, it has been judged wrong to believe on insufficient evidence, or to nourish belief by suppressing doubts and avoiding investigation. The reason of this judgment is not far to seek; it is that in both these cases the belief held by one man was of great importance to other men. But forasmuch as no belief held by one man, however seemingly trivial the belief, and however obscure the

believer, is ever actually insignificant or without its effect on the fate of mankind, we have no choice but to extend our judgment to all cases of belief whatever. Belief, that sacred faculty, which prompts the decisions of our will, and knits into harmonious working all the compacted energies of our being, is ours not for ourselves but for humanity. It is rightly used on truths which have been established by long tradition and waiting toil, and which have stood in the fierce light of free and fearless questioning. Then it helps to bind men together, and to strengthen and direct their common action. It is desecrated when given to unproved and unquestioned statements, for the solace and private pleasure of the believer; to add a tinsel splendor to the plain, straight road of our life, and display a bright mirage beyond it; or even to drown the common sorrows of our kind by a self-deception which allows them not only to cast down, but also to degrade us. Whoso would deserve well of his fellows in this matter will guard the purity of his belief with a very fanaticism of jealous care, lest at any time it should rest on an unworthy object, and catch a stain which can never be wiped away.

It is not only the leader of men, statesman, philosopher, or poet, that owes this bounden duty to mankind. Every rustic who delivers in the village alehouse his slow infrequent sentences, may help to kill or keep alive the fatal superstitions which clog his race. Every hard-worked wife of an artisan may transmit to her children beliefs which shall knit society together, or rend it in pieces. No simplicity of mind, no obscurity of station, can escape the universal duty of questioning all that we believe.

It is true that this duty is a hard one, and the doubt which comes out of it is often a very bitter thing. It leaves us bare and powerless where we thought that we were safe and strong. To know all about anything is to know how to deal with it under all circumstances. We feel much happier and more secure when we think we know precisely what we do, no matter what happens, than when we have lost our way and do not know where to turn. And if we have supposed ourselves to know all about anything, and to be capable of doing what is fit in regard to it,

we naturally do not like to find that we are really ignorant and powerless, that we have to begin again at the beginning, and try to learn what the thing is and how it is to be dealt with — if indeed anything can be learned about it. It is the sense of power attached to a sense of knowledge that makes men desirous of believing, and afraid of doubting.

This sense of power is the highest and best of pleasures when the belief on which it is founded is a true belief, and has been fairly earned by investigation. For then we may justly feel that it is common property, and holds good for others as well as for ourselves. Then we may be glad, not that *I* have learned secrets by which I am safer and stronger, but that *we men* have got mastery over more of the world; and we shall be strong, not for ourselves, but in the name of Man and in his strength. But if the belief has been accepted on insufficient evidence, the pleasure is a stolen one. Not only does it deceive ourselves by giving us a sense of power which we do not really possess, but it is sinful, because it is stolen in defiance of our duty to mankind. That duty is, to guard ourselves from such beliefs as from a pestilence, which may shortly master our own body and then spread to the rest of the town. What would be thought of one who, for the sake of a sweet fruit, should deliberately run the risk of bringing a plague upon his family and his neighbors?

And, as in other such cases, it is not the risk only which has to be considered; for a bad action is always bad at the time when it is done, no matter what happens afterwards. Every time we let ourselves believe for unworthy reasons, we weaken our powers of self-control, of doubting, of judicially and fairly weighing evidence. We all suffer severely enough from the maintenance and support of false beliefs and the fatally wrong actions which they lead to, and the evil born when one such belief is entertained is great and wide. But a greater and wider evil arises when the credulous character is maintained and supported, when a habit of believing for unworthy reasons is fostered and made permanent. If I steal money from any person, there may be no harm done by the mere transfer of possession; he may not feel the loss, or

it may prevent him from using the money badly. But I cannot help doing this great wrong towards Man, that I make myself dishonest. What hurts society is not that it should lose its property, but that it should become a den of thieves; for then it must cease to be society. This is why we ought not to do evil that good may come; for at any rate this great evil has come, that we have done evil and are made wicked thereby. In like manner, if I let myself believe anything on insufficient evidence, there may be no great harm done by the mere belief; it may be true after all, or I may never have occasion to exhibit it in outward acts. But I cannot help doing this great wrong towards Man, that I make myself credulous. The danger to society is not merely that it should believe wrong things, though that is great enough; but that it should become credulous, and lose the habit of testing things and inquiring into them; for then it must sink back into savagery.

The harm which is done by credulity in a man is not confined to the fostering of a credulous character in others, and consequent support of false beliefs. Habitual want of care about what I believe leads to habitual want of care in others about the truth of what is told to me. Men speak the truth to one another when each reveres the truth in his own mind and in the other's mind: but how shall my friend revere the truth in my mind when I myself am careless about it, when I believe things because I want to believe them, and because they are comforting and pleasant? Will he not learn to cry, "Peace," to me, when there is no peace? By such a course I shall surround myself with a thick atmosphere of falsehood and fraud, and in that I must live. It may matter little to me, in my cloud-castle of sweet illusions and darling lies; but it matters much to Man that I have made my neighbors ready to deceive. The credulous man is father to the liar and the cheat; he lives in the bosom of this his family, and it is no marvel if he should become even as they are. So closely are our duties knit together, that whoso shall keep the whole law, and yet offend in one point, he is guilty of all.

To sum up: it is wrong always, everywhere, and for any one, to believe anything upon insufficient evidence.

If a man, holding a belief which he was taught in childhood or persuaded of afterwards, keeps down and pushes away any doubts which arise about it in his mind, purposely avoids the reading of books and the company of men that call in question or discuss it, and regards as impious those questions which cannot easily be asked without disturbing it; the life of that man is one long sin against mankind.

If this judgment seems harsh when applied to those simple souls who have never known better, who have been brought up from the cradle with a horror of doubt, and taught that their eternal welfare depends on *what* they believe; then it leads to the very serious question, *Who hath made Israel to sin?*

It may be permitted me to fortify this judgment with the sentence of Milton [1]: —

"A man may be a heretic in the truth; and if he believe things only because his pastor says so, or the assembly so determine, without knowing other reason, though his belief be true, yet the very truth he holds becomes his heresy."

And with the famous aphorism of Coleridge [2]: —

"He who begins by loving Christianity better than Truth, will proceed by loving his own sect or Church better than Christianity, and end in loving himself better than all."

Inquiry into the evidence of a doctrine is not to be made once for all, and then taken as finally settled. It is never lawful to stifle a doubt; for either it can be honestly answered by means of the inquiry already made, or else it proves that the inquiry was not complete.

"But," says one, "I am a busy man; I have no time for the long course of study which would be necessary to make me in any degree a competent judge of certain questions, or even able to understand the nature of the arguments." Then he should have no time to believe.

[1] *Areopagitica.* [2] *Aids to Reflection.*

II. The Weight of Authority

Are we then to become universal skeptics, doubting everything, afraid always to put one foot before the other until we have personally tested the firmness of the road? Are we to deprive ourselves of the help and guidance of that vast body of knowledge which is daily growing upon the world, because neither we nor any other one person can possibly test a hundredth part of it by immediate experiment or observation, and because it would not be completely proved if we did? Shall we steal and tell lies because we have had no personal experience wide enough to justify the belief that it is wrong to do so?

There is no practical danger that such consequences will ever follow from scrupulous care and self-control in the matter of belief. Those men who have most nearly done their duty in this respect have found that certain great principles, and these most fitted for the guidance of life, have stood out more and more clearly in proportion to the care and honesty with which they were tested, and have acquired in this way a practical certainty. The beliefs about right and wrong which guide our actions in dealing with men in society, and the beliefs about physical nature which guide our actions in dealing with animate and inanimate bodies, these never suffer from investigation; they can take care of themselves, without being propped up by "acts of faith," the clamor of paid advocates, or the suppression of contrary evidence. Moreover, there are many cases in which it is our duty to act upon probabilities, although the evidence is not such as to justify present belief; because it is precisely by such action, and by observation of its fruits, that evidence is got which may justify future belief. So that we have no reason to fear lest a habit of conscientious inquiry should paralyze the actions of our daily life.

But because it is not enough to say, "It is wrong to believe on unworthy evidence," without saying also what evidence is worthy, we shall now go on to inquire under what circumstances it is lawful to believe on the testimony of others; and then, fur-

ther, we shall inquire more generally when and why we may believe that which goes beyond our own experience, or even beyond the experience of mankind.

In what cases, then, let us ask in the first place, is the testimony of a man unworthy of belief? He may say that which is untrue either knowingly or unknowingly. In the first case he is lying, and his moral character is to blame; in the second case he is ignorant or mistaken, and it is only his knowledge or his judgment which is in fault. In order that we may have the right to accept his testimony as ground for believing what he says, we must have reasonable grounds for trusting his *veracity*, that he is really trying to speak the truth so far as he knows it; his *knowledge*, that he has had opportunities of knowing the truth about this matter; and his *judgment*, that he has made a proper use of those opportunities in coming to the conclusion which he affirms.

However plain and obvious these considerations may be, so that no man of ordinary intelligence, reflecting on the matter, could fail to arrive at them, it is nevertheless true that a great many persons do habitually disregard them in weighing testimony. Of the two questions, equally important to the trustworthiness of a witness, "Is he dishonest?" and "May he be mistaken?" the majority of mankind are perfectly satisfied if *one* can, with some show of probability, be answered in the negative. The excellent moral character of a man is alleged as ground for accepting his statements about things which he cannot possibly have known. A Mohammedan, for example, will tell us that the character of his Prophet was so noble and majestic that it commands the reverence even of those who do not believe in his mission. So admirable was his moral teaching, so wisely put together the great social machine which he created, that his precepts have not only been accepted by a great portion of mankind, but have actually been obeyed. His institutions have on the one hand rescued the negro from savagery, and on the other hand have taught civilization to the advancing West; and although the races which held the highest forms of his faith, and most fully embodied his mind and thought, have all been

conquered and swept away by barbaric tribes, yet the history of their marvelous attainments remains as an imperishable glory to Islam. Are we to doubt the word of a man so great and so good? Can we suppose that this magnificent genius, this splendid moral hero, has lied to us about the most solemn and sacred matters? The testimony of Mohammed is clear, that there is but one God, and that he, Mohammed, is his prophet; that if we believe in him we shall enjoy everlasting felicity, but that if we do not we shall be damned. This testimony rests on the most awful of foundations, the revelation of heaven itself; for was he not visited by the angel Gabriel, as he fasted and prayed in his desert cave, and allowed to enter into the blessed fields of Paradise? Surely God is God, and Mohammed is the Prophet of God.

What should we answer to this Mussulman? First, no doubt, we should be tempted to take exception against his view of the character of the Prophet and the uniformly beneficial influence of Islam: before we could go with him altogether in these matters it might seem that we should have to forget many terrible things of which we have heard or read. But if we chose to grant him all these assumptions, for the sake of argument, and because it is difficult both for the faithful and for infidels to discuss them fairly and without passion; still we should have something to say which takes away the ground of his belief, and therefore shows that it is wrong to entertain it. Namely this: the character of Mohammed is excellent evidence that he was honest and spoke the truth so far as he knew it; but it is no evidence at all that he knew what the truth was. What means could he have of knowing that the form which appeared to him to be the angel Gabriel was not a hallucination, and that his apparent visit to Paradise was not a dream? Grant that he himself was fully persuaded and honestly believed that he had the guidance of heaven, and was the vehicle of a supernatural revelation; how could he know that this strong conviction was not a mistake? Let us put ourselves in his place; we shall find that the more completely we endeavor to realize what passed

through his mind, the more clearly we shall perceive that the Prophet could have had no adequate ground for the belief in his own inspiration. It is most probable that he himself never doubted of the matter, or thought of asking the question; but we are in the position of those to whom the question has been asked, and who are bound to answer it. It is known to medical observers that solitude and want of food are powerful means of producing delusion and of fostering a tendency to mental disease. Let us suppose, then, that I, like Mohammed, go into desert places to fast and pray; what things can happen to me which will give me the right to believe that I am divinely inspired? Suppose that I get information, apparently from a celestial visitor, which upon being tested is found to be correct. I cannot be sure, in the first place, that the celestial visitor is not a figment of my own mind, and that the information did not come to me, unknown at the time to my consciousness, through some subtle channel of sense. But if my visitor were a real visitor, and for a long time gave me information which was found to be trustworthy, this would indeed be good ground for trusting him in the future as to such matters as fall within human powers of verification; but it would not be ground for trusting his testimony as to any other matters. For although his tested character would justify me in believing that he spoke the truth so far as he knew, yet the same question would present itself — what ground is there for supposing that he knows?

Even if my supposed visitor had given me such information, subsequently verified by me, as proved him to have means of knowledge about verifiable matters far exceeding my own; this would not justify me in believing what he said about matters that are not at present capable of verification by man. It would be ground for interesting conjecture, and for the hope that, as the fruit of our patient inquiry, we might by and by attain to such a means of verification as should rightly turn conjecture into belief. For belief belongs to man, and to the guidance of human affairs: no belief is real unless it guide our actions, and those very actions supply a test of its truth.

But, it may be replied, the acceptance of Islam as a system is just that action which is prompted by belief in the mission of the Prophet, and which will serve for a test of its truth. Is it possible to believe that a system which has succeeded so well is really founded upon a delusion? Not only have individual saints found joy and peace in believing, and verified those spiritual experiences which are promised to the faithful, but nations also have been raised from savagery or barbarism to a higher social state. Surely we are at liberty to say that the belief has been acted upon, and that it has been verified.

It requires, however, but little consideration to show that what has really been verified is not at all the supernal character of the Prophet's mission, or the trustworthiness of his authority in matters which we ourselves cannot test; but only his practical wisdom in certain very mundane things. The fact that believers have found joy and peace in believing gives us the right to say that the doctrine is a comfortable doctrine, and pleasant to the soul; but it does not give us the right to say that it is true. And the question which our conscience is always asking about that which we are tempted to believe is not "Is it comfortable and pleasant?" but "Is it true?" That the Prophet preached certain doctrines, and predicted that spiritual comfort would be found in them, proves only his sympathy with human nature and his knowledge of it; but it does not prove his superhuman knowledge of theology.

And if we admit for the sake of argument (for it seems that we cannot do more) that the progress made by Moslem nations in certain cases was really due to the system formed and sent forth into the world by Mohammed; we are not at liberty to conclude from this that he was inspired to declare the truth about things which we cannot verify. We are only at liberty to infer the excellence of his moral precepts, or of the means which he devised for so working upon men as to get them obeyed, or of the social and political machinery which he set up. And it would require a great amount of careful examination into the history of those nations to determine which of these things had the greater share

in the result. So that here again it is the Prophet's knowledge of human nature, and his sympathy with it, that are verified; not his divine inspiration, or his knowledge of theology.

If there were only one Prophet, indeed, it might well seem a difficult and even an ungracious task to decide upon what points we would trust him, and on what we would doubt his authority; seeing what help and furtherance all men have gained in all ages from those who saw more clearly, who felt more strongly, and who sought the truth with more single heart than their weaker brethren. But there is not only one Prophet; and while the consent of many upon that which, as men, they had real means of knowing and did know, has endured to the end, and been honorably built into the great fabric of human knowledge; the diverse witness of some about that which they did not and could not know remains as a warning to us that to exaggerate the prophetic authority is to misuse it, and to dishonor those who have sought only to help and further us after their power. It is hardly in human nature that a man should quite accurately gauge the limits of his own insight; but it is the duty of those who profit by his work to consider carefully where he may have been carried beyond it. If we must needs embalm his possible errors along with his solid achievements, and use his authority as an excuse for believing what he cannot have known, we make of his goodness an occasion to sin.

To consider only one other such witness: the followers of Buddha have at least as much right to appeal to individual and social experience in support of the authority of the Eastern saviour. The special mark of his religion, it is said, that in which it has never been surpassed, is the comfort and consolation which it gives to the sick and sorrowful, the tender sympathy with which it soothes and assuages all the natural griefs of men. And surely no triumph of social morality can be greater or nobler than that which has kept nearly half the human race from persecuting in the name of religion. If we are to trust the accounts of his early followers, he believed himself to have come down upon earth with a divine and cosmic mission to set rolling the wheel of

the law. Being a prince, he emptied himself of his kingdom, and of his free will became acquainted with misery, that he might learn how to meet and subdue it. Could such a man speak falsely about solemn things? And as for his knowledge, was he not a man miraculous, with powers more than man's? He was born of woman without the help of man; he rose into the air and was transfigured before his kinsmen; at last he went up bodily into heaven from the top of Adam's Peak. Is not his word to be believed in when he testifies of heavenly things?

If there were only he, and no other, with such claims! But there is Mohammed with his testimony; we cannot choose but listen to them both. The Prophet tells us that there is one God, and that we shall live forever in joy or misery, according as we believe in the Prophet or not. The Buddha says that there is no God, and that we shall be annihilated by and by if we are good enough. Both cannot be infallibly inspired; one or the other must have been the victim of a delusion, and thought he knew that which he really did not know. Who shall dare to say which? and how can we justify ourselves in believing that the other was not also deluded?

We are led, then, to these judgments following. The goodness and greatness of a man do not justify us in accepting a belief upon the warrant of his authority, unless there are reasonable grounds for supposing that he knew the truth of what he was saying. And there can be no grounds for supposing that a man knows that which we, without ceasing to be men, could not be supposed to verify.

If a chemist tells me, who am no chemist, that a certain substance can be made by putting together other substances in certain proportions and subjecting them to a known process, I am quite justified in believing this upon his authority, unless I know anything against his character or his judgment. For his professional training is one which tends to encourage veracity and the honest pursuit of truth, and to produce a dislike of hasty conclusions and slovenly investigation. And I have reasonable ground for supposing that he knows the truth of what he is saying,

for although I am no chemist, I can be made to understand so much of the methods and processes of the science as makes it conceivable to me that, without ceasing to be man, I might verify the statement. I may never actually verify it, or even see any experiment which goes towards verifying it; but still I have quite reason enough to justify me in believing that the verification is within the reach of human appliances and powers, and in particular that it has been actually performed by my informant. His result, the belief to which he has been led by his inquiries, is valid not only for himself but for others; it is watched and tested by those who are working in the same ground, and who know that no greater service can be rendered to science than the purification of accepted results from the errors which may have crept into them. It is in this way that the result becomes common property, a right object of belief, which is a social affair and matter of public business. Thus it is to be observed that his authority is valid because there are those who question it and verify it; that it is precisely this process of examining and purifying that keeps alive among investigators the love of that which shall stand all possible tests, the sense of public responsibility as of those whose work, if well done, shall remain as the enduring heritage of mankind.

But if my chemist tells me that an atom of oxygen has existed unaltered in weight and rate of vibration throughout all time, I have no right to believe this on his authority, for it is a thing which he cannot know without ceasing to be man. He may quite honestly believe that this statement is a fair inference from his experiments, but in that case his judgment is at fault. A very simple consideration of the character of experiments would show him that they never can lead to results of such a kind; that being themselves only approximate and limited, they cannot give us knowledge which is exact and universal. No eminence of character and genius can give a man authority enough to justify us in believing him when he makes statements implying exact or universal knowledge.

Again, an Arctic explorer may tell us that in a given latitude

and longitude he has experienced such and such a degree of cold, that the sea was of such a depth, and the ice of such a character. We should be quite right to believe him in the absence of any stain upon his veracity. It is conceivable that we might, without ceasing to be men, go there and verify his statement; it can be tested by the witness of his companions, and there is adequate ground for supposing that he knows the truth of what he is saying. But if an old whaler tells us that the ice is three hundred feet thick all the way up to the Pole, we shall not be justified in believing him. For although the statement may be capable of verification by man, it is certainly not capable of verification by *him*, with any means and appliances which he has possessed; and he must have persuaded himself of the truth of it by some means which does not attach any credit to his testimony. Even if, therefore, the matter affirmed is within the reach of human knowledge, we have no right to accept it upon authority unless it is within the reach of our informant's knowledge.

What shall we say of that authority, more venerable and august than any individual witness, the time-honored tradition of the human race? An atmosphere of beliefs and conceptions has been formed by the labors and struggles of our forefathers, which enables us to breathe amid the various and complex circumstances of our life. It is around and about us and within us; we cannot think except in the forms and processes of thought which it supplies. Is it possible to doubt and to test it? and if possible, is it right?

We shall find reason to answer that it is not only possible and right, but our bounden duty; that the main purpose of the tradition itself is to supply us with the means of asking questions, of testing and inquiring into things; that if we misuse it, and take it as a collection of cut and dried statements, to be accepted without further inquiry, we are not only injuring ourselves here, but by refusing to do our part towards the building up of the fabric which shall be inherited by our children, we are tending to cut off ourselves and our race from the human line.

Let us take care to distinguish a kind of tradition which es-

pecially requires to be examined and called in question, because it especially shrinks from inquiry. Suppose that a medicine man in Central Africa tells his tribe that a certain powerful medicine in his tent will be propitiated if they kill their cattle; and that the tribe believe him. Whether the medicine was propitiated or not, there are no means of verifying, but the cattle are gone. Still the belief may be kept up in the tribe that propitiation has been effected in this way; and in a later generation it will be all the easier for another medicine man to persuade them to a similar act. Here the only reason for belief is that everybody has believed the thing for so long that it must be true. And yet the belief was founded on fraud, and has been propagated by credulity. That man will undoubtedly do right, and be a friend of men, who shall call it in question and see that there is no evidence for it, help his neighbors to see as he does, and even, if need be, go into the holy tent and break the medicine.

The rule which should guide us in such cases is simple and obvious enough: that the aggregate testimony of our neighbors is subject to the same conditions as the testimony of any one of them. Namely, we have no right to believe a thing true because everybody says so, unless there are good grounds for believing that some one person at least has the means of knowing what is true, and is speaking the truth so far as he knows it. However many nations and generations of men are brought into the witness box, they cannot testify to anything which they do not know. Every man who has accepted the statement from somebody else, without himself testing and verifying it, is out of court; his word is worth nothing at all. And when we get back at last to the true birth and beginning of the statement, two serious questions must be disposed of in regard to him who first made it: was he mistaken in thinking that he *knew* about this matter, or was he lying?

This last question is unfortunately a very actual and practical one, even to us at this day and in this country. We have no occasion to go to La Salette, or to Central Africa, or to Lourdes for examples of immoral and debasing superstition. It is only

too possible for a child to grow up in London surrounded by an atmosphere of beliefs fit only for the savage, which have in our own time been founded in fraud and propagated by credulity.

Laying aside, then, such tradition as is handed on without testing by successive generations, let us consider that which is truly built up out of the common experience of mankind. This great fabric is for the guidance of our thoughts, and through them of our actions, both in the moral and in the material world. In the moral world, for example, it gives us the conceptions of right in general, of justice, of truth, of beneficence, and the like. These are given as conceptions, not as statements or propositions; they answer to certain definite instincts, which are certainly within us, however they came there. That it is right to be beneficent is a matter of immediate personal experience; for when a man retires within himself and there finds something, wider and more lasting than his solitary personality, which says, "I want to do right," as well as, "I want to do good to man," he can verify by direct observation that one instinct is founded upon and agrees fully with the other. And it is his duty so to verify this and all similar statements.

The tradition says also, at a definite place and time, that such and such actions are just, or true, or beneficent. For all such rules a further inquiry is necessary, since they are sometimes established by an authority other than that of the moral sense founded on experience. Until recently, the moral tradition of our own country — and indeed of all Europe — taught that it was beneficent to give money indiscriminately to beggars. But the questioning of this rule, and investigation into it, led men to see that true beneficence is that which helps a man to do the work which he is most fitted for, not that which keeps and encourages him in idleness; and that to neglect this distinction in the present is to prepare pauperism and misery for the future. By this testing and discussion, not only has practice been purified and made more beneficent, but the very conception of beneficence has been made wider and wiser. Now here the great social heirloom consists of two parts: the instinct

of beneficence, which makes a certain side of our nature, when predominant, wish to do good to men; and the intellectual conception of beneficence, which we can compare with any proposed course of conduct and ask, "Is this beneficent or not?" By the continual asking and answering of such questions the conception grows in breadth and distinctness, and the instinct becomes strengthened and purified. It appears then that the great use of the conception, the intellectual part of the heirloom, is to enable us to ask questions; that it grows and is kept straight by means of these questions; and if we do not use it for that purpose we shall gradually lose it altogether, and be left with a mere code of regulations which cannot rightly be called morality at all.

Such considerations apply even more obviously and clearly, if possible, to the store of beliefs and conceptions which our fathers have amassed for us in respect of the material world. We are ready to laugh at the rule of thumb of the Australian, who continues to tie his hatchet to the side of the handle, although the Birmingham fitter has made a hole on purpose for him to put the handle in. His people have tied up hatchets so for ages: who is he that he should set himself up against their wisdom? He has sunk so low that he cannot do what some of them must have done in the far distant past — call in question an established usage, and invent or learn something better. Yet here, in the dim beginning of knowledge, where science and art are one, we find only the same simple rule which applies to the highest and deepest growths of that cosmic Tree; to its loftiest flower-tipped branches as well as to the profoundest of its hidden roots; the rule, namely, that what is stored up and handed down to us is rightly used by those who act as the makers acted, when they stored it up; those who use it to ask further questions, to examine, to investigate; who try honestly and solemnly to find out what is the right way of looking at things and of dealing with them.

A question rightly asked is already half answered, said Jacobi; we may add that the method of solution is the other half of the answer, and that the actual result counts for nothing by the side of these two. For an example let us go to the telegraph, where

theory and practice, grown each to years of discretion, are marvelously wedded for the fruitful service of men. Ohm found that the strength of an electric current is directly proportional to the strength of the battery which produces it, and inversely as the length of the wire along which it has to travel. This is called Ohm's law; but the result, regarded as a statement to be believed, is not the valuable part of it. The first half is the question: what relation holds good between these quantities? So put, the question involves already the conception of strength of current, and of strength of battery, as quantities to be measured and compared; it hints clearly that these are the things to be attended to in the study of electric currents. The second half is the method of investigation; how to measure these quantities, what apparatus are required for the experiment, and how are they to be used? The student who begins to learn about electricity is not asked to begin in Ohm's law; he is made to understand the question, he is placed before the apparatus, and he is taught to verify it. He learns to do things, not to think he knows things; to use instruments and to ask questions, not to accept a traditional statement. The question which required a genius to ask it rightly is answered by a tyro. If Ohm's law were suddenly lost and forgotten by all men, while the question and the method of solution remained, the result could be rediscovered in an hour. But the result by itself, if known to a people who could not comprehend the value of the question or the means of solving it, would be like a watch in the hands of a savage who could not wind it up, or an iron steamship worked by Spanish engineers.

In regard, then, to the sacred tradition of humanity, we learn that it consists, not in propositions or statements which are to be accepted and believed on the authority of the tradition, but in questions rightly asked, in conceptions which enable us to ask further questions, and in methods of answering questions. The value of all these things depends on their being tested day by day. The very sacredness of the precious deposit imposes upon us the duty and the responsibility of testing it, of purifying

and enlarging it to the utmost of our power. He who makes use of its results to stifle his own doubts, or to hamper the inquiry of others, is guilty of a sacrilege which centuries shall never be able to blot out. When the labors and questionings of honest and brave men shall have built up the fabric of known truth to a glory which we in this generation can neither hope for nor imagine; in that pure and holy temple he shall have no part nor lot, but his name and his works shall be cast out into the darkness of oblivion forever.

III. The Limits of Inference

The question, in what cases we may believe that which goes beyond our experience, is a very large and delicate one, extending to the whole range of scientific method, and requiring a considerable increase in the application of it before it can be answered with anything approaching to completeness. But one rule, lying on the threshold of the subject, of extreme simplicity and vast practical importance, may here be touched upon and shortly laid down.

A little reflection will show us that every belief, even the simplest and most fundamental, goes beyond experience when regarded as a guide to our actions. A burnt child dreads the fire, because it believes that the fire will burn it to-day just as it did yesterday; but this belief goes beyond experience, and assumes that the unknown fire of to-day is like the known fire of yesterday. Even the belief that the child was burnt yesterday goes beyond *present* experience, which contains only the memory of a burning, and not the burning itself; it assumes, therefore, that this memory is trustworthy, although we know that a memory may often be mistaken. But if it is to be used as a guide of action as a hint of what the future is to be, it must assume something about that future, namely, that it will be consistent with the supposition that the burning really took place yesterday; which is going beyond experience. Even the fundamental "I am," which cannot be doubted, is no guide to action until it takes to

itself "I shall be," which goes beyond experience. The question is not, therefore, "May we believe what goes beyond experience?" for this is involved in the very nature of belief; but "How far and in what manner may we add to our experience in forming our beliefs?"

And an answer, of utter simplicity and universality, is suggested by the example we have taken: a burnt child dreads the fire. We may go beyond experience by assuming that what we do not know is like what we do know; or, in other words, we may add to our experience on the assumption of a uniformity in nature. What this uniformity precisely is, how we grow in the knowledge of it from generation to generation, these are questions which for the present we lay aside, being content to examine two instances which may serve to make plainer the nature of the rule.

From certain observations made with the spectroscope, we infer the existence of hydrogen in the sun. By looking into the spectroscope when the sun is shining on its slit, we see certain definite bright lines; and experiments made upon bodies on the earth have taught us that when these bright lines are seen, hydrogen is the source of them. We assume, then, that the unknown bright lines in the sun are like the known bright lines of the laboratory, and that hydrogen in the sun behaves as hydrogen under similar circumstances would behave on the earth.

But are we not trusting our spectroscope too much? Surely, having found it to be trustworthy for terrestrial substances, where its statements can be verified by man, we are justified in accepting its testimony in other like cases; but not when it gives us information about things in the sun, where its testimony cannot be directly verified by man?

Certainly, we want to know a little more before this inference can be justified; and fortunately we do know this. The spectroscope testifies to exactly the same thing in the two cases; namely, that light vibrations of a certain rate are being sent through it. Its construction is such that if it were wrong about this in one case it would be wrong in the other. When we come

to look into the matter, we find that we have really assumed the matter of the sun to be like the matter of the earth, made up of a certain number of distinct substances; and that each of these, when very hot, has a distinct rate of vibration, by which it may be recognized and singled out from the rest. But this is the kind of assumption which we are justified in using when we add to our experience. It is an assumption of uniformity in nature, and can only be checked by comparison with many similar assumptions which we have to make in other such cases.

But is this a true belief, of the existence of hydrogen in the sun? Can it help in the right guidance of human action?

Certainly not, if it is accepted on unworthy grounds, and without some understanding of the process by which it is got at. But when this process is taken in as the ground of the belief, it becomes a very serious and practical matter. For if there is no hydrogen in the sun, the spectroscope — that is to say, the measurement of rates of vibration — must be an uncertain guide in recognizing different substances; and consequently it ought not to be used in chemical analysis — in assaying, for example — to the great saving of time, trouble, and money. Whereas the acceptance of the spectroscopic method as trustworthy has enriched us not only with new metals, which is a great thing, but with new processes of investigation, which is vastly greater.

For another example, let us consider the way in which we infer the truth of an historical event — say the siege of Syracuse in the Peloponnesian war. Our experience is that manuscripts exist which are said to be and which call themselves manuscripts of the history of Thucydides; that in other manuscripts, stated to be by later historians, he is described as living during the time of the war; and that books, supposed to date from the revival of learning, tell us how these manuscripts had been preserved and were then acquired. We find also that men do not, as a rule, forge books and histories without a special motive; we assume that in this respect men in the past were like men in the present; and we observe that in this case no special motive was present. That is, we add to our experience on the assumption of a uniform-

ity in the characters of men. Because our knowledge of this uniformity is far less complete and exact than our knowledge of that which obtains in physics, inferences of the historical kind are more precarious and less exact than inferences in many other sciences.

But if there is any special reason to suspect the character of the persons who wrote or transmitted certain books, the case becomes altered. If a group of documents give internal evidence that they were produced among people who forged books in the names of others, and who, in describing events, suppressed those things which did not suit them, while they amplified such as did suit them; who not only committed these crimes, but gloried in them as proofs of humility and zeal; then we must say that upon such documents no true historical inference can be founded, but only unsatisfactory conjecture.

We may, then, add to our experience on the assumption of a uniformity in nature; we may fill in our picture of what is and has been, as experience gives it to us, in such a way as to make the whole consistent with this uniformity. And practically demonstrative inference — that which gives us a right to believe in the result of it — is a clear showing that in no other way than by the truth of this result can the uniformity of nature be saved.

No evidence, therefore, can justify us in believing the truth of a statement which is contrary to, or outside of, the uniformity of nature. If our experience is such that it cannot be filled up consistently with uniformity, all we have a right to conclude is that there is something wrong somewhere; but the possibility of inference is taken away; we must rest in our experience, and not go beyond it at all. If an event really happened, which was not a part of the uniformity of nature, it would have two properties; no evidence could give the right to believe it to any except those whose actual experience it was; and no inference worthy of belief could be founded upon it at all.

Are we then bound to believe that nature is absolutely and universally uniform? Certainly not; we have no right to believe anything of this kind. The rule only tells us that in form-

ing beliefs which go beyond our experience, we may make the assumption that nature is practically uniform so far as we are concerned. Within the range of human action and verification, we may form, by help of this assumption, actual beliefs; beyond it, only those hypotheses which serve for the more accurate asking of questions.

To sum up: —

We may believe what goes beyond our experience, only when it is inferred from that experience by the assumption that what we do not know is like what we know.

We may believe the statement of another person, when there is reasonable ground for supposing that he knows the matter of which he speaks, and that he is speaking the truth so far as he knows it.

It is wrong in all cases to believe on insufficient evidence; and where it is presumption to doubt and to investigate, there it is worse than presumption to believe.

IV

THE WILL TO BELIEVE[1]

WILLIAM JAMES

[William James (1842–1910), brother of the novelist, Henry James, is recognized as one of the ablest psychologists and philosophers America has produced. After studying medicine at Harvard, he began, in 1872, his life-long connection with that institution, occupying in turn chairs in physiology, psychology, and philosophy. His published work in these fields of knowledge has placed him among the foremost thinkers of our time.

The following essay on *The Will to Believe* illustrates James's attitude toward religious faith, his reasonableness and ingenuity in argument, and his unconventionality and charm of style. As the champion of "the right to adopt a believing attitude in religious matters in spite of the fact that our merely logical intellect may not have been coerced," James takes issue flatly with the position of Clifford in the foregoing selection. His thesis is not that we have a right to believe anything we like, but that in the final problems of life, when presented with two alternatives, neither of which is capable of proof or disproof, it is more rational for us to choose the one which is in accord with our hopes rather than our fears.

This essay was delivered as an address to the Philosophical Clubs of Yale and Brown Universities, in April and May, 1896, and first printed in the *New World* for June of that year. Its argument, although universally commended for its brilliancy, occasioned many rejoinders, among them: E. Stettheimer's *The Will to Believe as a Basis for the Defense of Religious Faith* (tr. 1907), Dickinson S. Miller's *The Will to Believe and the Duty to Doubt* (*International Journal of Ethics*, January, 1899), and Vernon Lee's *The Need to Believe* (*Fortnightly Review*, November, 1899).]

IN the recently published Life by Leslie Stephen of his brother, Fitz-James, there is an account of a school to which the latter went when he was a boy. The teacher, a certain Mr. Guest, used

[1] Reprinted by permission from *The Will to Believe and other Essays in Popular Philosophy* by William James (Longmans, Green, & Co.).

to converse with his pupils in this wise: "Gurney, what is the difference between justification and sanctification? — Stephen, prove the omnipotence of God!" etc. In the midst of our Harvard freethinking and indifference we are prone to imagine that here at your good old orthodox College conversation continues to be somewhat upon this order; and to show you that we at Harvard have not lost all interest in these vital subjects, I have brought with me to-night something like a sermon on justification by faith to read to you, — I mean an essay in justification *of* faith, a defense of our right to adopt a believing attitude in religious matters, in spite of the fact that our merely logical intellect may not have been coerced. *The Will to Believe*, accordingly, is the title of my paper.

I have long defended to my own students the lawfulness of voluntarily adopted faith; but as soon as they have got well imbued with the logical spirit, they have as a rule refused to admit my contention to be lawful philosophically, even though in point of fact they were personally all the time chock-full of some faith or other themselves. I am all the while, however, so profoundly convinced that my own position is correct, that your invitation has seemed to me a good occasion to make my statements more clear. Perhaps your minds will be more open than those with which I have hitherto had to deal. I will be as little technical as I can, though I must begin by setting up some technical distinctions that will help us in the end.

I

Let us give the name of *hypothesis* to anything that may be proposed to our belief; and just as the electricians speak of live and dead wires, let us speak of any hypothesis as either *live* or *dead*. A live hypothesis is one which appeals as a real possibility to him to whom it is proposed. If I ask you to believe in the Mahdi, the notion makes no electric connection with your nature, — it refuses to scintillate with any credibility at all. As an hypothesis it is completely dead. To an Arab, however (even if he be not one of the Mahdi's followers), the hypothesis is

among the mind's possibilities: it is alive. This shows that deadness and liveness in an hypothesis are not intrinsic properties, but relations to the individual thinker. They are measured by his willingness to act. The maximum of liveness in an hypothesis means willingness to act irrevocably. Practically, that means belief; but there is some believing tendency wherever there is willingness to act at all.

Next, let us call the decision between two hypotheses an *option*. Options may be of several kinds. They may be: 1, *living* or *dead;* 2, *forced* or *avoidable;* 3, *momentous* or *trivial;* and for our purposes we may call an option a *genuine* option when it is of the forced, living, and momentous kind.

1. A living option is one in which both hypotheses are live ones. If I say to you: "Be a theosophist or be a Mohammedan," it is probably a dead option, because for you neither hypothesis is likely to be alive. But if I say: "Be an agnostic or be a Christian," it is otherwise: trained as you are, each hypothesis makes some appeal, however small, to your belief.

2. Next, if I say to you: "Choose between going out with your umbrella or without it," I do not offer you a genuine option, for it is not forced. You can easily avoid it by not going out at all. Similarly, if I say, "Either love me or hate me," "Either call my theory true or call it false," your option is avoidable. You may remain indifferent to me, neither loving nor hating, and you may decline to offer any judgment as to my theory. But if I say, "Either accept this truth or go without it," I put on you a forced option, for there is no standing place outside of the alternative. Every dilemma based on a complete logical disjunction, with no possibility of not choosing, is an option of this forced kind.

3. Finally, if I were Dr. Nansen and proposed to you to join my North Pole expedition, your option would be momentous; for this would probably be your only similar opportunity, and your choice now would either exclude you from the North Pole sort of immortality altogether or put at least the chance of it into your hands. He who refuses to embrace a unique oppor-

tunity loses the prize as surely as if he tried and failed. *Per contra*, the option is trivial when the opportunity is not unique, when the stake is insignificant, or when the decision is reversible if it later prove unwise. Such trivial options abound in the scientific life. A chemist finds an hypothesis live enough to spend a year in its verification: he believes in it to that ex tent. But if his experiments prove inconclusive either way, he is quit for his loss of time, no vital harm being done.

It will facilitate our discussion if we keep all these distinctions well in mind.

II

The next matter to consider is the actual psychology of human opinion. When we look at certain facts, it seems as if our passional and volitional nature lay at the root of all our convictions. When we look at others, it seems as if they could do nothing when the intellect had once said its say. Let us take the latter facts up first.

Does it not seem preposterous on the very face of it to talk of our opinions being modifiable at will? Can our will either help or hinder our intellect in its perceptions of truth? Can we, by just willing it, believe that Abraham Lincoln's existence is a myth, and that the portraits of him in *McClure's Magazine* are all of some one else? Can we, by any effort of our will, or by any strength of wish that it were true, believe ourselves well and about when we are roaring with rheumatism in bed, or feel certain that the sum of the two one-dollar bills in our pocket must be a hundred dollars? We can *say* any of these things, but we are absolutely impotent to believe them; and of just such things is the whole fabric of the truths that we do believe in made up, — matters of fact, immediate or remote, as Hume said, and relations between ideas, which are either there or not there for us if we see them so, and which if not there cannot be put there by any action of our own.

In Pascal's *Thoughts* there is a celebrated passage known in literature as Pascal's wager. In it he tries to force us into Christianity by reasoning as if our concern with truth resembled

our concern with the stakes in a game of chance. Translated freely, his words are these: You must either believe or not believe that God is — which will you do? Your human reason cannot say. A game is going on between you and the nature of things which at the day of judgment will bring out either heads or tails. Weigh what your gains and your losses would be if you should stake all you have on heads, or God's existence: if you win in such case, you gain eternal beatitude; if you lose, you lose nothing at all. If there were an infinity of chances, and only one for God in this wager, still you ought to stake your all on God; for though you surely risk a finite loss by this procedure, any finite loss is reasonable, even a certain one is reasonable, if there is but the possibility of infinite gain. Go, then, and take holy water, and have masses said; belief will come and stupefy your scruples, — *Cela vous fera croire et vous abêtira.* Why should you not? At bottom, what have you to lose?

You probably feel that when religious faith expresses itself thus, in the language of the gaming-table, it is put to its last trumps. Surely Pascal's own personal belief in masses and holy water had far other springs; and this celebrated page of his is but an argument for others, a last desperate snatch at a weapon against the hardness of the unbelieving heart. We feel that a faith in masses and holy water adopted willfully after such a mechanical calculation would lack the inner soul of faith's reality; and if we were ourselves in the place of the Deity, we should probably take particular pleasure in cutting off believers of this pattern from their infinite reward. It is evident that unless there be some preëxisting tendency to believe in masses and holy water, the option offered to the will by Pascal is not a living option. Certainly no Turk ever took to masses and holy water on its account; and even to us Protestants these means of salvation seem such foregone impossibilities that Pascal's logic, invoked for them specifically, leaves us unmoved. As well might the Mahdi write to us, saying, "I am the Expected One whom God has created in his effulgence. You shall be infinitely

happy if you confess me; otherwise you shall be cut off from the light of the sun. Weigh, then, your infinite gain if I am genuine against your finite sacrifice if I am not!" His logic would be that of Pascal; but he would vainly use it on us, for the hypothesis he offers us is dead. No tendency to act on it exists in us to any degree.

The talk of believing by our volition seems, then, from one point of view, simply silly. From another point of view it is worse than silly; it is vile. When one turns to the magnificent edifice of the physical sciences, and sees how it was reared; what thousands of disinterested moral lives of men lie buried in its mere foundations; what patience and postponement, what choking down of preference, what submission to the icy laws of outer fact are wrought into its very stones and mortar; how absolutely impersonal it stands in its vast augustness, — then how besotted and contemptible seems every little sentimentalist who comes blowing his voluntary smoke wreaths, and pretending to decide things from out of his private dream! Can we wonder if those bred in the rugged and manly school of science should feel like spewing such subjectivism out of their mouths? The whole system of loyalties which grow up in the schools of science go dead against its toleration; so that it is only natural that those who have caught the scientific fever should pass over to the opposite extreme, and write sometimes as if the incorruptibly truthful intellect ought positively to prefer bitterness and unacceptableness to the heart in its cup.

> It fortifies my soul to know
> That, though I perish, Truth is so —

sings Clough, while Huxley exclaims: "My only consolation lies in the reflection that, however bad our posterity may become, so far as they hold by the plain rule of not pretending to believe what they have no reason to believe, because it may be to their advantage so to pretend [the word 'pretend' is surely here redundant], they will not have reached the lowest depth of immorality." And that delicious *enfant terrible* Clifford writes:

"Belief is desecrated when given to unproved and unquestioned statements for the solace and private pleasure of the believer. . . . Whoso would deserve well of his fellows in this matter will guard the purity of his belief with a very fanaticism of jealous care, lest at any time it should rest on an unworthy object, and catch a stain which can never be wiped away. . . . If [a] belief has been accepted on insufficient evidence [even though the belief be true, as Clifford on the same page explains] the pleasure is a stolen one. . . . It is sinful because it is stolen in defiance of our duty to mankind. That duty is to guard ourselves from such beliefs as from a pestilence which may shortly master our own body and then spread to the rest of the town. . . . It is wrong always, everywhere, and for every one, to believe anything upon insufficient evidence."

III

All this strikes one as healthy, even when expressed, as by Clifford, with somewhat too much of robustious pathos in the voice. Free will and simple wishing do seem, in the matter of our credences, to be only fifth wheels to the coach. Yet if any one should thereupon assume that intellectual insight is what remains after wish and will and sentimental preference have taken wing, or that pure reason is what then settles our opinions, he would fly quite as directly in the teeth of the facts.

It is only our already dead hypotheses that our willing nature is unable to bring to life again. But what has made them dead for us is for the most part a previous action of our willing nature of an antagonistic kind. When I say "willing nature," I do not mean only such deliberate volitions as may have set up habits of belief that we cannot now escape from, — I mean all such factors of belief as fear and hope, prejudice and passion, imitation and partisanship, the circumpressure of our caste and set. As a matter of fact we find ourselves believing, we hardly know how or why. Mr. Balfour gives the name of "authority" to all those influences, born of the intellectual climate, that make hypotheses possible or impossible for us, alive

or dead. Here in this room, we all of us believe in molecules and the conservation of energy, in democracy and necessary progress, in Protestant Christianity and the duty of fighting for "the doctrine of the immortal Monroe," all for no reasons worthy of the name. We see into these matters with no more inner clearness, and probably with much less, than any disbeliever in them might possess. His unconventionality would probably have some grounds to show for its conclusions; but for us, not insight, but the *prestige* of the opinions, is what makes the spark shoot from them and light up our sleeping magazines of faith. Our reason is quite satisfied, in nine hundred and ninety-nine cases out of every thousand of us, if it can find a few arguments that will do to recite in case our credulity is criticized by some one else. Our faith is faith in some one else's faith, and in the greatest matters this is most the case. Our belief in truth itself, for instance, that there is a truth, and that our minds and it are made for each other, — what is it but a passionate affirmation of desire, in which our social system backs us up? We want to have a truth; we want to believe that our experiments and studies and discussions must put us in a continually better and better position towards it; and on this line we agree to fight out our thinking lives. But if a pyrrhonistic skeptic asks us *how we know* all this, can our logic find a reply? No! certainly it cannot. It is just one volition against another,— we willing to go in for life upon a trust or assumption which he, for his part, does not care to make.[1]

As a rule we disbelieve all facts and theories for which we have no use. Clifford's cosmic emotions find no use for Christian feelings. Huxley belabors the bishops because there is no use for sacerdotalism in his scheme of life. Newman, on the contrary, goes over to Romanism, and finds all sorts of reasons good for staying there, because a priestly system is for him an organic need and delight. Why do so few "scientists" even look at the evidence for telepathy, so called? Because they

[1] Compare the admirable page 310 in S. H. Hodgson's *Time and Space*, London, 1865.

think, as a leading biologist, now dead, once said to me, that even if such a thing were true, scientists ought to band together to keep it suppressed and concealed. It would undo the uniformity of nature and all sorts of other things without which scientists cannot carry on their pursuits. But if this very man had been shown something which as a scientist he might *do* with telepathy, he might not only have examined the evidence, but even have found it good enough. This very law which the logicians would impose upon us — if I may give the name of logicians to those who would rule out our willing nature here — is based on nothing but their own natural wish to exclude all elements for which they, in their professional quality of logicians, can find no use.

Evidently, then, our nonintellectual nature does influence our convictions. There are passional tendencies and volitions which run before and others which come after belief, and it is only the latter that are too late for the fair; and they are not too late when the previous passional work has been already in their own direction. Pascal's argument, instead of being powerless, then seems a regular clincher, and is the last stroke needed to make our faith in masses and holy water complete. The state of things is evidently far from simple; and pure insight and logic, whatever they might do ideally, are not the only things that really do produce our creeds.

IV

Our next duty, having recognized this mixed-up state of affairs, is to ask whether it be simply reprehensible and pathological, or whether, on the contrary, we must treat it as a normal element in making up our minds. The thesis I defend is, briefly stated, this: *Our passional nature not only lawfully may, but must, decide an option between propositions, whenever it is a genuine option that cannot by its nature be decided on intellectual grounds; for to say, under such circumstances, "Do not decide, but leave the question open," is itself a passional decision, — just like deciding yes or no, — and is attended with the same risk of los-*

ing the truth. The thesis thus abstractly expressed will, I trust, soon become quite clear. But I must first indulge in a bit more of preliminary work.

V

It will be observed that for the purposes of this discussion we are on "dogmatic" ground, — ground, I mean, which leaves systematic philosophical skepticism altogether out of account. The postulate that there is truth, and that it is the destiny of our minds to attain it, we are deliberately resolving to make, though the skeptic will not make it. We part company with him, therefore, absolutely, at this point. But the faith that truth exists, and that our minds can find it, may be held in two ways. We may talk of the *empiricist* way and of the *absolutist* way of believing in truth. The absolutists in this matter say that we not only can attain to knowing truth, but we can *know when* we have attained to knowing it; while the empiricists think that although we may attain it, we cannot infallibly know when. To *know* is one thing, and to know for certain *that* we know is another. One may hold to the first being possible without the second; hence the empiricists and the absolutists, although neither of them is a skeptic in the usual philosophic sense of the term, show very different degrees of dogmatism in their lives.

If we look at the history of opinions, we see that the empiricist tendency has largely prevailed in science, while in philosophy the absolutist tendency has had everything its own way. The characteristic sort of happiness, indeed, which philosophies yield has mainly consisted in the conviction felt by each successive school or system that by it bottom-certitude had been attained. "Other philosophies are collections of opinions, mostly false; *my* philosophy gives standing ground forever," — who does not recognize in this the keynote of every system worthy of the name? A system, to be a system at all, must come as a *closed* system, reversible in this or that detail, perchance, but in its essential features never!

Scholastic orthodoxy, to which one must always go when one wishes to find perfectly clear statement, has beautifully elaborated this absolutist conviction in a doctrine which it calls that of "objective evidence." If, for example, I am unable to doubt that I now exist before you, that two is less than three, or that if all men are mortal, then I am mortal too, it is because these things illumine my intellect irresistibly. The final ground of this objective evidence possessed by certain propositions is the *adæquatio intellectûs nostri cum rê*.[1] The certitude it brings involves an *aptitudinem ad extorquendum certum assensum*[2] on the part of the truth envisaged, and on the side of the subject a *quietem in cognitione*,[3] when once the object is mentally received, that leaves no possibility of doubt behind; and in the whole transaction nothing operates but the *entitas ipsa*[4] of the object and the *entitas ipsa* of the mind. We slouchy modern thinkers dislike to talk in Latin, — indeed, we dislike to talk in set terms at all; but at bottom our own state of mind is very much like this whenever we uncritically abandon ourselves: You believe in objective evidence, and I do. Of some things we feel that we are certain: we know, and we know that we do know. There is something that gives a click inside of us, a bell that strikes twelve, when the hands of our mental clock have swept the dial and meet over the meridian hour. The greatest empiricists among us are only empiricists on reflection: when left to their instincts, they dogmatize like infallible popes. When the Cliffords tell us how sinful it is to be Christians on such "insufficient evidence," insufficiency is really the last thing they have in mind. For them the evidence is absolutely sufficient, only it makes the other way. They believe so completely in an antichristian order of the universe that there is no living option: Christianity is a dead hypothesis from the start.

[1] A correspondence of the perception with the object. — *Editors.*

[2] Capability of compelling unqualified assent. — *Editors.*

[3] Assured knowledge. — *Editors.*

[4] Actual existence. — *Editors.*

VI

But now, since we are all such absolutists by instinct, what in our quality of students of philosophy ought we to do about the fact? Shall we espouse and indorse it? Or shall we treat it as a weakness of our nature from which we must free ourselves, if we can?

I sincerely believe that the latter course is the only one we can follow as reflective men. Objective evidence and certitude are doubtless very fine ideals to play with, but where on this moonlit and dream-visited planet are they found? I am, therefore, myself a complete empiricist so far as my theory of human knowledge goes. I live, to be sure, by the practical faith that we must go on experiencing and thinking over our experience, for only thus can our opinions grow more true; but to hold any one of them — I absolutely do not care which — as if it never could be reinterpretable or corrigible, I believe to be a tremendously mistaken attitude, and I think that the whole history of philosophy will bear me out. There is but one indefectibly certain truth, and that is the truth that pyrrhonistic skepticism itself leaves standing, — the truth that the present phenomenon of consciousness exists. That, however, is the bare starting point of knowledge, the mere admission of a stuff to be philosophized about. The various philosophies are but so many attempts at expressing what this stuff really is. And if we repair to our libraries what disagreement do we discover! Where is a certainly true answer found? Apart from abstract propositions of comparison (such as two and two are the same as four), propositions which tell us nothing by themselves about concrete reality, we find no proposition ever regarded by any one as evidently certain that has not either been called a falsehood, or at least had its truth sincerely questioned by some one else. The transcending of the axioms of geometry, not in play but in earnest, by certain of our contemporaries (as Zöllner and Charles H. Hinton), and the rejection of the whole Aristotelian logic by the Hegelians, are striking instances in point.

No concrete test of what is really true has ever been agreed upon. Some make the criterion external to the moment of perception, putting it either in revelation, the *consensus gentium*,[1] the instincts of the heart, or the systematized experience of the race. Others make the perceptive moment its own test, — Descartes, for instance, with his clear and distinct ideas guaranteed by the veracity of God; Reid with his "common sense"; and Kant with his forms of synthetic judgment *a priori*. The inconceivability of the opposite; the capacity to be verified by sense; the possession of complete organic unity or self-relation, realized when a thing is its own other, — are standards which, in turn, have been used. The much lauded objective evidence is never triumphantly there; it is a mere aspiration or *Grenzbegriff*, marking the infinitely remote ideal of our thinking life. To claim that certain truths now possess it, is simply to say that when you think them true and they *are* true, then their evidence is objective, otherwise it is not. But practically one's conviction that the evidence one goes by is of the real objective brand is only one more subjective opinion added to the lot. For what a contradictory array of opinions have objective evidence and absolute certitude been claimed! The world is rational through and through, — its existence is an ultimate brute fact; there is a personal God, — a personal God is inconceivable; there is an extra-mental physical world immediately known, — the mind can only know its own ideas; a moral imperative exists, — obligation is only the resultant of desires; a permanent spiritual principle is in every one, — there are only shifting states of mind; there is an endless chain of causes, — there is an absolute first cause; an eternal necessity, — a freedom; a purpose, — no purpose; a primal One, — a primal Many; a universal continuity, — an essential discontinuity in things; an infinity, — no infinity. There is this, — there is that; there is indeed nothing which some one has not thought absolutely true, while his neighbor deemed it absolutely false; and not an absolutist among them seems ever to have considered that the

[1] Prevailing opinion. — *Editors.*

trouble may all the time be essential, and that the intellect, even with truth directly in its grasp, may have no infallible signal for knowing whether it be truth or no. When, indeed, one remembers that the most striking practical application to life of the doctrine of objective certitude has been the conscientious labors of the Holy Office of the Inquisition, one feels less tempted than ever to lend the doctrine a respectful ear.

But please observe, now, that when as empiricists we give up the doctrine of objective certitude, we do not thereby give up the quest or hope of truth itself. We still pin our faith on its existence, and still believe that we gain an ever better position towards it by systematically continuing to roll up experiences and think. Our great difference from the scholastic lies in the way we face. The strength of his system lies in the principles, the origin, the *terminus a quo* of his thought; for us the strength is in the outcome, the upshot, the *terminus ad quem*. Not where it comes from, but what it leads to is to decide. It matters not to an empiricist from what quarter an hypothesis may come to him: he may have acquired it by fair means or by foul; passion may have whispered or accident suggested it; but if the total drift of thinking continues to confirm it, that is what he means by its being true.

VII

One more point, small but important, and our preliminaries are done. There are two ways of looking at our duty in the matter of opinion, — ways entirely different, and yet ways about whose difference the theory of knowledge seems hitherto to have shown very little concern. *We must know the truth;* and *we must avoid error*, — these are our first and great commandments as would-be knowers; but they are not two ways of stating an identical commandment, they are two separable laws. Although it may indeed happen that when we believe the truth A, we escape as an incidental consequence from believing the falsehood B, it hardly ever happens that by merely disbelieving B we necessarily believe A. We may in escaping

B fall into believing other falsehoods, *C* or *D*, just as bad as *B*; or we may escape *B* by not believing anything at all, not even *A*.

Believe truth! Shun error! — these, we see, are two materially different laws; and by choosing between them we may end, coloring differently our whole intellectual life. We may regard the chase for truth as paramount, and the avoidance of error as secondary; or we may, on the other hand, treat the avoidance of error as more imperative, and let truth take its chance. Clifford, in the instructive passage which I have quoted, exhorts us to the latter course. Believe nothing, he tells us; keep your mind in suspense forever, rather than by closing it on insufficient evidence incur the awful risk of believing lies. You, on the other hand, may think that the risk of being in error is a very small matter when compared with the blessings of real knowledge, and be ready to be duped many times in your investigation rather than postpone indefinitely the chance of guessing true. I myself find it impossible to go with Clifford. We must remember that these feelings of our duty about either truth or error are in any case only expressions of our passional life. Biologically considered, our minds are as ready to grind out falsehood as veracity, and he who says, "Better go without belief forever than believe a lie!" merely shows his own preponderant private horror of becoming a dupe. He may be critical of many of his desires and fears, but this fear he slavishly obeys. He cannot imagine any one questioning its binding force. For my own part, I have also a horror of being duped; but I can believe that worse things than being duped may happen to a man in this world: so Clifford's exhortation has to my ears a thoroughly fantastic sound. It is like a general informing his soldiers that it is better to keep out of battle forever than to risk a single wound. Not so are victories either over enemies or over nature gained. Our errors are surely not such awfully solemn things. In a world where we are so certain to incur them in spite of all our caution, a certain lightness of heart seems healthier than this excessive

nervousness on their behalf. At any rate, it seems the fittest thing for the empiricist philosopher.

VIII

And now, after all this introduction, let us go straight at our question. I have said, and now repeat it, that not only as a matter of fact do we find our passional nature influencing us in our opinions, but that there are some options between opinions in which this influence must be regarded both as an inevitable and as a lawful determinant of our choice.

I fear here that some of you, my hearers, will begin to scent danger, and lend an inhospitable ear. Two first steps of passion you have indeed had to admit as necessary, — we must think so as to avoid dupery, and we must think so as to gain truth; but the surest path to those ideal consummations, you will probably consider, is from now onwards to take no further passional step.

Well, of course, I agree as far as the facts will allow. Wherever the option between losing truth and gaining it is not momentous, we can throw the chance of *gaining truth* away, and at any rate save ourselves from any chance of *believing falsehood*, by not making up our minds at all till objective evidence has come. In scientific questions, this is almost always the case; and even in human affairs in general, the need of acting is seldom so urgent that a false belief to act on is better than no belief at all. Law courts, indeed, have to decide on the best evidence attainable for the moment, because a judge's duty is to make law as well as to ascertain it, and (as a learned judge once said to me) few cases are worth spending much time over: the great thing is to have them decided on *any* acceptable principle, and got out of the way. But in our dealings with objective nature we obviously are recorders, not makers, of the truth; and decisions for the mere sake of deciding promptly and getting on to the next business would be wholly out of place. Throughout the breadth of physical nature facts are what they are quite independently of us, and seldom is there any such hurry about

them that the risks of being duped by believing a premature theory need be faced. The questions here are always trivial options, the hypotheses are hardly living (at any rate not living for us spectators), the choice between believing truth or falsehood is seldom forced. The attitude of skeptical balance is therefore the absolutely wise one if we would escape mistakes. What difference, indeed, does it make to most of us whether we have or have not a theory of the Röntgen rays, whether we believe or not in mind stuff, or have a conviction about the causality of conscious states? It makes no difference. Such options are not forced on us. On every account it is better not to make them, but still keep weighing reasons *pro et contra* with an indifferent hand.

I speak, of course, here of the purely judging mind. For purposes of discovery such indifference is to be less highly recommended, and science would be far less advanced than she is if the passionate desires of individuals to get their own faiths confirmed had been kept out of the game. See, for example, the sagacity which Spencer and Weismann now display. On the other hand, if you want an absolute duffer in an investigation, you must, after all, take the man who has no interest whatever in its results: he is the warranted incapable, the positive fool. The most useful investigator, because the most sensitive observer, is always he whose eager interest in one side of the question is balanced by an equally keen nervousness lest he become deceived.[1] Science has organized this nervousness into a regular *technique*, her so-called method of verification; and she has fallen so deeply in love with the method that one may even say she has ceased to care for truth by itself at all. It is only truth as technically verified that interests her. The truth of truths might come in merely affirmative form, and she would decline to touch it. Such truth as that, she might repeat with Clifford, would be stolen in defiance of her duty to mankind. Human passions, however, are stronger than technical rules. "Le cœur

[1] Compare Wilfrid Ward's Essay, "The Wish to Believe," in his *Witnesses to the Unseen* (Macmillan & Co., 1893).

a ses raisons," as Pascal says, "que la raison ne connaî pas;"[1] and however indifferent to all but the bare rules of the game the umpire, the abstract intellect, may be, the concrete players who furnish him the materials to judge of are usually, each one of them, in love with some pet "live hypothesis" of his own. Let us agree, however, that wherever there is no forced option, the dispassionately judicial intellect with no pet hypothesis, saving us, as it does, from dupery at any rate, ought to be our ideal.

The question next arises: Are there not somewhere forced options in our speculative questions, and can we (as men who may be interested at least as much in positively gaining truth as in merely escaping dupery) always wait with impunity till the coercive evidence shall have arrived? It seems *a priori* improbable that the truth should be so nicely adjusted to our needs and powers as that. In the great boarding house of nature, the cakes and the butter and the sirup seldom come out so even and leave the plates so clean. Indeed, we should view them with scientific suspicion if they did.

IX

Moral questions immediately present themselves as questions whose solution cannot wait for sensible proof. A moral question is a question not of what sensibly exists, but of what is good, or would be good if it did exist. Science can tell us what exists; but to compare the *worths*, both of what exists and of what does not exist, we must consult not science, but what Pascal calls our heart. Science herself consults her heart when she lays it down that the infinite ascertainment of fact and correction of false belief are the supreme goods for man. Challenge the statement, and science can only repeat it oracularly, or else prove it by showing that such ascertainment and correction bring man all sorts of other goods which man's heart in turn declares. The question of having moral beliefs at all or not having them is decided by our will. Are our moral preferences

[1] The heart has its reasons with which reason is unacquainted. — *Editors*

true or false, or are they only odd biological phenomena, making things good or bad for *us*, but in themselves indifferent? How can your pure intellect decide? If your heart does not *want* a world of moral reality, your head will assuredly never make you believe in one. Mephistophelian skepticism, indeed, will satisfy the head's play instincts much better than any rigorous idealism can. Some men (even at the student age) are so naturally cool hearted that the moralistic hypothesis never has for them any pungent life, and in their supercilious presence the hot young moralist always feels strangely ill at ease. The appearance of knowingness is on their side, of *naïveté* and gullibility on his. Yet, in the inarticulate heart of him, he clings to it that he is not a dupe, and that there is a realm in which (as Emerson says) all their wit and intellectual superiority is no better than the cunning of a fox. Moral skepticism can no more be refuted or proved by logic than intellectual skepticism can. When we stick to it that there *is* truth (be it of either kind), we do so with our whole nature, and resolve to stand or fall by the results. The skeptic with his whole nature adopts the doubting attitude; but which of us is the wiser, Omniscience only knows.

Turn now from these wide questions of good to a certain class of questions of fact, questions concerning personal relations, states of mind between one man and another. *Do you like me or not?* — for example. Whether you do or not depends, in countless instances, on whether I meet you halfway, am willing to assume that you must like me, and show you trust and expectation. The previous faith on my part in your liking's existence is in such cases what makes your liking come. But if I stand aloof, and refuse to budge an inch until I have objective evidence, until you shall have done something apt, as the absolutists say, *ad extorquendum assensum meum*,[1] ten to one your liking never comes. How many women's hearts are vanquished by the mere sanguine insistence of some man that they *must* love him! he will not consent to the hypothesis that they

[1] For compelling my approval. — *Editors.*

cannot. The desire for a certain kind of truth here brings about that special truth's existence; and so it is in innumerable cases of other sorts. Who gains promotions, boons, appointments, but the man in whose life they are seen to play the part of live hypotheses, who discounts them, sacrifices other things for their sake before they have come, and takes risks for them in advance? His faith acts on the powers above him as a claim, and creates its own verification.

A social organism of any sort whatever, large or small, is what it is because each member proceeds to his own duty with a trust that the other members will simultaneously do theirs. Wherever a desired result is achieved by the coöperation of many independent persons, its existence as a fact is a pure consequence of the precursive faith in one another of those immediately concerned. A government, an army, a commercial system, a ship, a college, an athletic team, all exist on this condition, without which not only is nothing achieved, but nothing is even attempted. A whole train of passengers (individually brave enough) will be looted by a few highwaymen, simply because the latter can count on one another, while each passenger fears that if he makes a movement of resistance, he will be shot before any one else backs him up. If we believed that the whole carful would rise at once with us, we should each severally rise, and train robbing would never even be attempted. There are, then, cases where a fact cannot come at all unless a preliminary faith exists in its coming. *And where faith in a fact can help create the fact*, that would be an insane logic which should say that faith running ahead of scientific evidence is the "lowest kind of immorality" into which a thinking being can fall. Yet such is the logic by which our scientific absolutists pretend to regulate our lives!

X

In truths dependent on our personal action, then, faith based on desire is certainly a lawful and possibly an indispensable thing.

But now, it will be said, these are all childish human cases, and have nothing to do with great cosmical matters, like the question of religious faith. Let us then pass on to that. Religions differ so much in their accidents that in discussing the religious question we must make it very generic and broad. What then do we now mean by the religious hypothesis? Science says things are; morality says some things are better than other things; and religion says essentially two things.

First, she says that the best things are the more eternal things, the overlapping things, the things in the universe that throw the last stone, so to speak, and say the final word. "Perfection is eternal," — this phrase of Charles Secrétan seems a good way of putting this first affirmation of religion, an affirmation which obviously cannot yet be verified scientifically at all.

The second affirmation of religion is that we are better off even now if we believe her first affirmation to be true.

Now, let us consider what the logical elements of this situation are *in case the religious hypothesis in both its branches be really true.* (Of course, we must admit that possibility at the outset. If we are to discuss the question at all, it must involve a living option. If for any of you religion be an hypothesis that cannot, by any living possibility be true, then you need go no farther. I speak to the "saving remnant" alone.) So proceeding, we see, first, that religion offers itself as a *momentous* option. We are supposed to gain, even now, by our belief, and to lose by our nonbelief, a certain vital good. Secondly, religion is a *forced* option, so far as that good goes. We cannot escape the issue by remaining skeptical and waiting for more light, because, although we do avoid error in that way *if religion be untrue*, we lose the good, *if it be true*, just as certainly as if we positively chose to disbelieve. It is as if a man should hesitate indefinitely to ask a certain woman to marry him because he was not perfectly sure that she would prove an angel after he brought her home. Would he not cut himself off from that particular angel-possibility as decisively as if he went and married some one else? Skepticism, then, is not avoidance of option; it is option

of a certain particular kind of risk. *Better risk loss of truth than chance of error*, — that is your faith-vetoer's exact position. He is actively playing his stake as much as the believer is; he is backing the field against the religious hypothesis, just as the believer is backing the religious hypothesis against the field. To preach skepticism to us as a duty until "sufficient evidence" for religion be found, is tantamount therefore to telling us, when in presence of the religious hypothesis, that to yield to our fear of its being error is wiser and better than to yield to our hope that it may be true. It is not intellect against all passions, then; it is only intellect with one passion laying down its law. And by what, forsooth, is the supreme wisdom of this passion warranted? Dupery for dupery, what proof is there that dupery through hope is so much worse than dupery through fear? I, for one, can see no proof; and I simply refuse obedience to the scientist's command to imitate his kind of option, in a case where my own stake is important enough to give me the right to choose my own form of risk. If religion be true and the evidence for it be still insufficient, I do not wish, by putting your extinguisher upon my nature (which feels to me as if it had after all some business in this matter), to forfeit my sole chance in life of getting upon the winning side, — that chance depending, of course, on my willingness to run the risk of acting as if my passional need of taking the world religiously might be prophetic and right.

All this is on the supposition that it really may be prophetic and right, and that, even to us who are discussing the matter, religion is a live hypothesis which may be true. Now, to most of us religion comes in a still further way that makes a veto on our active faith even more illogical. The more perfect and more eternal aspect of the universe is represented in our religions as having personal form. The universe is no longer a mere *It* to us, but a *Thou*, if we are religious; and any relation that may be possible from person to person might be possible here. For instance, although in one sense we are passive portions of the universe, in another we show a curious autonomy, as if we were

small active centers on our own account. We feel, too, as if the appeal of religion to us were made to our own active good will, as if evidence might be forever withheld from us unless we met the hypothesis halfway. To take a trivial illustration: just as a man who in a company of gentlemen made no advances, asked a warrant for every concession, and believed no one's word without proof, would cut himself off by such churlishness from all the social rewards that a more trusting spirit would earn, — so here, one who should shut himself up in snarling logicality and try to make the gods extort his recognition willy-nilly, or not get it at all, might cut himself off forever from his only opportunity of making the gods' acquaintance. This feeling, forced on us we know not whence, that by obstinately believing that there are gods (although not to do so would be so easy both for our logic and our life) we are doing the universe the deepest service we can, seems part of the living essence of the religious hypothesis. If the hypothesis *were* true in all its parts, including this one, then pure intellectualism, with its veto on our making willing advances, would be an absurdity; and some participation of our sympathetic nature would be logically required. I, therefore, for one, cannot see my way to accepting the agnostic rules for truth-seeking, or willfully agree to keep my willing nature out of the game. I cannot do so for this plain reason, that *a rule of thinking which would absolutely prevent me from acknowledging certain kinds of truth if those kinds of truth were really there, would be an irrational rule.* That for me is the long and short of the formal logic of the situation, no matter what the kinds of truth might materially be.

I confess I do not see how this logic can be escaped. But sad experience makes me fear that some of you may still shrink from radically saying with me, *in abstracto*, that we have the right to believe at our own risk any hypothesis that is live enough to tempt our will. I suspect, however, that if this is so, it is because you have got away from the abstract logical point of view altogether, and are thinking (perhaps without realizing it) of some particular religious hypothesis which for you is dead.

The freedom to "believe what we will" you apply to the case of some patent superstition; and the faith you think of is the faith defined by the schoolboy when he said, "Faith is when you believe something that you know ain't true." I can only repeat that this is misapprehension. *In concreto*, the freedom to believe can only cover living options which the intellect of the individual cannot by itself resolve; and living options never seem absurdities to him who has them to consider. When I look at the religious question as it really puts itself to concrete men, and when I think of all the possibilities which both practically and theoretically it involves, then this command that we shall put a stopper on our heart, instincts, and courage, and *wait* — acting of course meanwhile more or less as if religion were *not* true [1] — till doomsday, or till such time as our intellect and senses working together may have raked in evidence enough, — this command, I say, seems to me the queerest idol ever manufactured in the philosophic cave.[2] Were we scholastic absolutists, there might be more excuse. If we had an infallible intellect with its objective certitudes, we might feel ourselves disloyal to such a perfect organ of knowledge in not trusting to it exclusively, in not waiting for its releasing word. But if we are empiricists, if we believe that no bell in us tolls to let us know for certain when truth is in our grasp, then it seems a piece of idle fantasticality to preach so solemnly our duty of waiting for the bell. Indeed we *may* wait if we will, — I hope you do not

[1] Since belief is measured by action, he who forbids us to believe religion to be true, necessarily also forbids us to act as we should if we did believe it to be true. The whole defense of religious faith hinges upon action. If the action required or inspired by the religious hypothesis is in no way different from that dictated by the naturalistic hypothesis, then religious faith is a pure superfluity, better pruned away, and controversy about its legitimacy is a piece of idle trifling, unworthy of serious minds. I myself believe, of course, that the religious hypothesis gives to the world an expression which specifically determines our reactions, and makes them in a large part unlike what they might be on a purely naturalistic scheme of belief.

[2] The "Idol of the Cave" is the form of fallacy in which the reason is overruled by individual preference. — *Editors.*

think that I am denying that, — but if we do so, we do so at our peril as much as if we believed. In either case we *act*, taking our life in our hands. No one of us ought to issue vetoes to the other, nor should we bandy words of abuse. We ought, on the contrary, delicately and profoundly to respect one another's mental freedom: then only shall we bring about the intellectual republic; then only shall we have that spirit of inner tolerance without which all our outer tolerance is soulless, and which is empiricism's glory; then only shall we live and let live, in speculative as well as in practical things.

I began by a reference to Fitz-James Stephen; let me end by a quotation from him. "What do you think of yourself? What do you think of the world? . . . These are questions with which all must deal as it seems good to them. They are riddles of the Sphinx, and in some way or other we must deal with them. . . . In all important transactions of life we have to take a leap in the dark. . . . If we decide to leave the riddles unanswered, that is a choice; if we waver in our answer, that, too, is a choice: but whatever choice we make, we make it at our peril. If a man chooses to turn his back altogether on God and the future, no one can prevent him; no one can show beyond reasonable doubt that he is mistaken. If a man thinks otherwise and acts as he thinks, I do not see that any one can prove that *he* is mistaken. Each must act as he thinks best; and if he is wrong, so much the worse for him. We stand on a mountain pass in the midst of whirling snow and blinding mist, through which we get glimpses now and then of paths which may be deceptive. If we stand still, we shall be frozen to death. If we take the wrong road, we shall be dashed to pieces. We do not certainly know whether there is any right one. What must we do? 'Be strong and of a good courage.' Act for the best, hope for the best, and take what comes. . . . If death ends all, we cannot meet death better." [1]

[1] *Liberty, Equality, and Fraternity*, p. 353, 2d edition (London, 1874).

V

OF THE LIBERTY OF THOUGHT AND DISCUSSION

JOHN STUART MILL

[John Stuart Mill (1806–1873), eldest son of James Mill, the utilitarian, was a logician, economist, and philosopher, whose influence on the social and political movements of the third quarter of the nineteenth century can hardly be overestimated. Brought up by his father after the strictest code of the stern utilitarian school, he later became the leader of the group of thinkers who were to continue in modified form the traditions of this older school of economists. He was active in the political discussions of the day, was editor and joint proprietor of the *London and Westminster Review* for some years, served one term in Parliament, and throughout his life wrote and labored unceasingly for social and political reforms and for the dissemination of the principles he held to be essential to human happiness.

Of all Mill's writing, the volume *On Liberty* (published 1859), of which the following selection forms the second chapter, is regarded as the most carefully prepared and highly polished. It contains the clearest statement of the author's modified individualism, which maintained that every man should be allowed all liberty that did not interfere with that of his neighbor; and, like the *Subjection of Women*, a chapter of which appears in this volume, it illustrates the author's interest in the practical aspects of his question. The purpose of the essay, as declared in the introductory chapter, is to assert the principle of individual liberty in thought and action, in order that a restraint may be placed upon the growing tendency of the majority to tyrannize, an evil which has supplanted the old tyranny of rulers. Since Mill's day the trend of political opinion has been away from individualism; but among his contemporaries the volume had great influence. A suggestive and elaborate attack on Mill's position may be found in Sir James Fitzjames Stephen's *Liberty, Equality, and Fraternity* (1873).]

THE time, it is to be hoped, is gone by, when any defense would be necessary of the "liberty of the press" as one of the securities against corrupt or tyrannical government. No argument, we

may suppose, can now be needed, against permitting a legislature or an executive, not identified in interest with the people, to prescribe opinions to them, and determine what doctrines or what arguments they shall be allowed to hear. This aspect of the question, besides, has been so often and so triumphantly enforced by preceding writers, that it needs not be specially insisted on in this place. Though the law of England, on the subject of the press, is as servile to this day as it was in the time of the Tudors, there is little danger of its being actually put in force against political discussion, except during some temporary panic, when fear of insurrection drives ministers and judges from their propriety; and, speaking generally, it is not, in constitutional countries, to be apprehended that the government, whether completely responsible to the people or not, will often attempt to control the expression of opinion, except when in doing so it makes itself the organ of the general intolerance of the public. Let us suppose, therefore, that the government is entirely at one with the people, and never thinks of exerting any power of coercion unless in agreement with what it conceives to be their voice. But I deny the right of the people to exercise such coercion, either by themselves or by their government. The power itself is illegitimate. The best government has no more title to it than the worst. It is as noxious, or more noxious, when exerted in accordance with public opinion than when in opposition to it. If all mankind, minus one, were of one opinion, and only one person were of the contrary opinion, mankind would be no more justified in silencing that one person than he, if he had the power, would be justified in silencing mankind. Were an opinion a personal possession of no value except to the owner; if to be obstructed in the enjoyment of it were simply a private injury, it would make some difference whether the injury was inflicted only on a few persons or on many. But the peculiar evil of silencing the expression of an opinion is, that it is robbing the human race; posterity as well as the existing generation; those who dissent from the opinion, still more than those who hold it. If the opinion is right, they are deprived of the opportunity of exchang-

ing error for truth; if wrong, they lose, what is almost as great a benefit, the clearer perception and livelier impression of truth, produced by its collision with error.

It is necessary to consider separately these two hypotheses, each of which has a distinct branch of the argument corresponding to it. We can never be sure that the opinion we are endeavoring to stifle is a false opinion; and if we were sure, stifling it would be an evil still.

First: the opinion which it is attempted to suppress by authority may possibly be true. Those who desire to suppress it, of course, deny its truth; but they are not infallible. They have no authority to decide the question for all mankind, and exclude every other person from the means of judging. To refuse a hearing to an opinion, because they are sure that it is false, is to assume that *their* certainty is the same thing as *absolute* certainty. All silencing of discussion is an assumption of infallibility. Its condemnation may be allowed to rest on this common argument, not the worse for being common.

Unfortunately for the good sense of mankind, the fact of their fallibility is far from carrying the weight in their practical judgment, which is always allowed to it in theory; for while every one well knows himself to be fallible, few think it necessary to take any precautions against their own fallibility, or admit the supposition that any opinion, of which they feel very certain, may be one of the examples of the error to which they acknowledge themselves to be liable. Absolute princes, or others who are accustomed to unlimited deference, usually feel this complete confidence in their own opinions on nearly all subjects. People more happily situated, who sometimes hear their opinions disputed, and are not wholly unused to be set right when they are wrong, place the same unbounded reliance only on such of their opinions as are shared by all who surround them, or to whom they habitually defer; for in proportion to a man's want of confidence in his own solitary judgment, does he usually repose, with implicit trust, on the infallibility of "the world" in general. And the

world, to each individual, means the part of it with which he comes in contact; his party, his sect, his church, his class of society: the man may be called, by comparison, almost liberal and large-minded to whom it means anything so comprehensive as his own country or his own age. Nor is his faith in this collective authority at all shaken by his being aware that other ages, countries, sects, churches, classes, and parties have thought, and even now think, the exact reverse. He devolves upon his own world the responsibility of being in the right against the dissentient worlds of other people; and it never troubles him that mere accident has decided which of these numerous worlds is the object of his reliance, and that the same causes which make him a Churchman in London would have made him a Buddhist or a Confucian in Pekin. Yet it is as evident in itself, as any amount of argument can make it, that ages are no more infallible than individuals; every age having held many opinions which subsequent ages have deemed not only false but absurd; and it is as certain that many opinions, now general, will be rejected by future ages, as it is that many, once general, are rejected by the present.

The objection likely to be made to this argument would probably take some such form as the following: There is no greater assumption of infallibility in forbidding the propagation of error than in any other thing which is done by public authority on its own judgment and responsibility. Judgment is given to men that they may use it. Because it may be used erroneously, are men to be told that they ought not to use it at all? To prohibit what they think pernicious, is not claiming exemption from error, but fulfilling the duty incumbent on them, although fallible, of acting on their conscientious conviction. If we were never to act on our opinions, because those opinions may be wrong, we should leave all our interests uncared for, and all our duties unperformed. An objection which applies to all conduct, can be no valid objection to any conduct in particular. It is the duty of governments, and of individuals, to form the truest opinions they can; to form them carefully, and never impose them upon others unless they

are quite sure of being right. But when they are sure (such reasoners may say), it is not conscientiousness but cowardice to shrink from acting on their opinions, and allow doctrines which they honestly think dangerous to the welfare of mankind, either in this life or in another, to be scattered abroad without restraint, because other people, in less enlightened times, have persecuted opinions now believed to be true. Let us take care, it may be said, not to make the same mistake; but governments and nations have made mistakes in other things, which are not denied to be fit subjects for the exercise of authority; they have laid on bad taxes, made unjust wars. Ought we therefore to lay on no taxes, and, under whatever provocation, make no wars? Men and governments must act to the best of their ability. There is no such thing as absolute certainty, but there is assurance sufficient for the purposes of human life. We may, and must, assume our opinion to be true for the guidance of our own conduct; and it is assuming no more when we forbid bad men to pervert society by the propagation of opinions which we regard as false and pernicious.

I answer that it is assuming very much more. There is the greatest difference between presuming an opinion to be true, because, with every opportunity for contesting it, it has not been refuted, and assuming its truth for the purpose of not permitting its refutation. Complete liberty of contradicting and disproving our opinion is the very condition which justifies us in assuming its truth for purposes of action; and on no other terms can a being with human faculties have any rational assurance of being right.

When we consider either the history of opinion, or the ordinary conduct of human life, to what is it to be ascribed that the one and the other are no worse than they are? Not certainly to the inherent force of the human understanding; for, on any matter not self-evident, there are ninety-nine persons totally incapable of judging of it, for one who is capable; and the capacity of the hundredth person is only comparative; for the majority of the eminent men of every past generation held many opinions now known to be erroneous, and did or approved numerous things

which no one will now justify. Why is it, then, that there is on the whole a preponderance among mankind of rational opinions and rational conduct? If there really is this preponderance, — which there must be, unless human affairs are, and have always been, in an almost desperate state, — it is owing to a quality of the human mind, the source of everything respectable in man either as an intellectual or as a moral being; namely, that his errors are corrigible. He is capable of rectifying his mistakes, by discussion and experience. Not by experience alone. There must be discussion, to show how experience is to be interpreted. Wrong opinions and practices gradually yield to fact and argument; but facts and arguments, to produce any effect on the mind, must be brought before it. Very few facts are able to tell their own story, without comments to bring out their meaning. The whole strength and value, then, of human judgment, depending on the one property, that it can be set right when it is wrong, reliance can be placed on it only when the means of setting it right are kept constantly at hand. In the case of any person whose judgment is really deserving of confidence, how has it become so? Because he has kept his mind open to criticism of his opinions and conduct. Because it has been his practice to listen to all that could be said against him; to profit by as much of it as was just, and expound to himself, and upon occasion to others, the fallacy of what was fallacious. Because he has felt, that the only way in which a human being can make some approach to knowing the whole of a subject, is by hearing what can be said about it by persons of every variety of opinion, and studying all modes in which it can be looked at by every character of mind. No wise man ever acquired his wisdom in any mode but this; nor is it in the nature of human intellect to become wise in any other manner. The steady habit of correcting and completing his own opinion by collating it with those of others, so far from causing doubt and hesitation in carrying it into practice, is the only stable foundation for a just reliance on it; for, being cognizant of all that can, at least obviously, be said against him, and having taken up his position against all gainsayers, — knowing

that he has sought for objections and difficulties, instead of avoiding them, and has shut out no light which can be thrown upon the subject from any quarter, — he has a right to think his judgment better than that of any person, or any multitude, who have not gone through a similar process.

It is not too much to require that what the wisest of mankind, those who are best entitled to trust their own judgment, find necessary to warrant their relying on it, should be submitted to by that miscellaneous collection of a few wise and many foolish individuals, called the public. The most intolerant of churches, the Roman Catholic Church, even at the canonization of a saint, admits, and listens patiently to, a "devil's advocate." The holiest of men, it appears, cannot be admitted to posthumous honors, until all that the devil could say against him is known and weighed. If even the Newtonian philosophy were not permitted to be questioned, mankind could not feel as complete assurance of its truth as they now do. The beliefs which we have most warrant for, have no safeguard to rest on, but a standing invitation to the whole world to prove them unfounded. If the challenge is not accepted, or is accepted and the attempt fails, we are far enough from certainty still; but we have done the best that the existing state of human reason admits of; we have neglected nothing that could give the truth a chance of reaching us: if the lists are kept open, we may hope that if there be a better truth, it will be found when the human mind is capable of receiving it; and in the meantime we may rely on having attained such approach to truth as is possible in our own day. This is the amount of certainty attainable by a fallible being, and this the sole way of attaining it.

Strange it is, that men should admit the validity of the arguments for free discussion, but object to their being "pushed to an extreme"; not seeing that unless the reasons are good for an extreme case, they are not good for any case. Strange that they should imagine that they are not assuming infallibility, when they acknowledge that there should be free discussion on all subjects which can possibly be *doubtful*, but think that some partic-

ular principle or doctrine should be forbidden to be questioned because it is *so certain*, that is, because *they are certain* that it is certain. To call any proposition certain, while there is any one who would deny its certainty if permitted, but who is not permitted, is to assume that we ourselves, and those who agree with us, are the judges of certainty, and judges without hearing the other side.

In the present age — which has been described as "destitute of faith, but terrified at skepticism" — in which people feel sure, not so much that their opinions are true, as that they should not know what to do without them — the claims of an opinion to be protected from public attack are rested not so much on its truth, as on its importance to society. There are, it is alleged, certain beliefs so useful, not to say indispensable, to well-being that it is as much the duty of governments to uphold those beliefs, as to protect any other of the interests of society. In a case of such necessity, and so directly in the line of their duty, something less than infallibility may, it is maintained, warrant, and even bind, governments, to act on their own opinion, confirmed by the general opinion of mankind. It is also often argued, and still oftener thought, that none but bad men would desire to weaken these salutary beliefs; and there can be nothing wrong, it is thought, in restraining bad men, and prohibiting what only such men would wish to practice. This mode of thinking makes the justification of restraints on discussion not a question of the truth of doctrines, but of their usefulness; and flatters itself by that means to escape the responsibility of claiming to be an infallible judge of opinions. But those who thus satisfy themselves do not perceive that the assumption of infallibility is merely shifted from one point to another. The usefulness of an opinion is itself matter of opinion: as disputable, as open to discussion, and requiring discussion as much, as the opinion itself. There is the same need of an infallible judge of opinions to decide an opinion to be noxious, as to decide it to be false, unless the opinion condemned has full opportunity of defending itself. And it will not do to say that the heretic may be allowed to maintain the utility or harmlessness of

his opinion, though forbidden to maintain its truth. The truth of an opinion is part of its utility. If we would know whether or not it is desirable that a proposition should be believed, is it possible to exclude the consideration of whether or not it is true? In the opinion, not of bad men, but of the best men, no belief which is contrary to truth can be really useful: and can you prevent such men from urging that plea, when they are charged with culpability for denying some doctrine which they are told is useful, but which they believe to be false? Those who are on the side of received opinions never fail to take all possible advantage of this plea; you do not find *them* handling the question of utility as if it could be completely abstracted from that of truth; on the contrary, it is, above all, because their doctrine is "the truth," that the knowledge or the belief of it is held to be so indispensable. There can be no fair discussion of the question of usefulness, when an argument so vital may be employed on one side, but not on the other. And in point of fact, when law or public feeling do not permit the truth of an opinion to be disputed, they are just as little tolerant of a denial of its usefulness. The utmost they allow is an extenuation of its absolute necessity, or of the positive guilt of rejecting it.

In order more fully to illustrate the mischief of denying a hearing to opinions because we, in our own judgment, have condemned them, it will be desirable to fix down the discussion to a concrete case; and I choose, by preference, the cases which are least favorable to me — in which the argument against freedom of opinion, both on the score of truth and on that of utility, is considered the strongest. Let the opinions impugned be the belief in a God and in a future state, or any of the commonly received doctrines of morality. To fight the battle on such ground, gives a great advantage to an unfair antagonist; since he will be sure to say (and many who have no desire to be unfair will say it internally), Are these the doctrines which you do not deem sufficiently certain to be taken under the protection of law? Is the belief in a God one of the opinions, to feel sure of which you hold

to be assuming infallibility? But I must be permitted to observe, that it is not the feeling sure of a doctrine (be it what it may) which I call an assumption of infallibility. It is the undertaking to decide that question *for others*, without allowing them to hear what can be said on the contrary side. And I denounce and reprobate this pretension not the less, if put forth on the side of my most solemn convictions. However positive any one's persuasion may be, not only of the falsity, but of the pernicious consequences — not only of the pernicious consequences, but (to adopt expressions which I altogether condemn) the immorality and impiety of an opinion; yet if, in pursuance of that private judgment, though backed by the public judgment of his country or his contemporaries, he prevents the opinion from being heard in its defense, he assumes infallibility. And so far from the assumption being less objectionable or less dangerous because the opinion is called immoral or impious, this is the case of all others in which it is most fatal. These are exactly the occasions on which the men of one generation commit those dreadful mistakes which excite the astonishment and horror of posterity. It is among such that we find the instances memorable in history, when the arm of the law has been employed to root out the best men and the noblest doctrines; with deplorable success as to the men, though some of the doctrines have survived to be (as if in mockery) invoked, in defense of similar conduct towards those who dissent from *them*, or from their received interpretation.

Mankind can hardly be too often reminded that there was once a man named Socrates, between whom and the legal authorities and public opinion of his time there took place a memorable collision. Born in an age and country abounding in individual greatness, this man has been handed down to us by those who best knew both him and the age, as the most virtuous man in it; while *we* know him as the head and prototype of all subsequent teachers of virtue, the source equally of the lofty inspiration of Plato and the judicious utilitarianism of Aristotle, "*i maēstri di color che sanno*," [1] the two headsprings of ethical as of all other philosophy.

[1] The teachers of those who know. — *Editors.*

This acknowledged master of all the eminent thinkers who have since lived — whose fame, still growing after more than two thousand years, all but outweighs the whole remainder of the names which make his native city illustrious — was put to death by his countrymen, after a judicial conviction, for impiety and immorality. Impiety, in denying the gods recognized by the state; indeed his accuser asserted (see the *Apologia*[1]) that he believed in no gods at all. Immorality, in being, by his doctrines and instructions, a "corruptor of youth." Of these charges the tribunal, there is every ground for believing, honestly found him guilty, and condemned the man who probably of all then born had deserved best of mankind, to be put to death as a criminal.

To pass from this to the only other instance of judicial iniquity, the mention of which, after the condemnation of Socrates, would not be an anticlimax: the event which took place on Calvary rather more than eighteen hundred years ago. The man who left on the memory of those who witnessed his life and conversation such an impression of his moral grandeur that eighteen subsequent centuries have done homage to him as the Almighty in person, was ignominiously put to death, as what? As a blasphemer. Men did not merely mistake their benefactor, they mistook him for the exact contrary of what he was, and treated him as that prodigy of impiety, which they themselves are now held to be, for their treatment of him. The feelings with which mankind now regard these lamentable transactions, especially the later of the two, render them extremely unjust in their judgment of the unhappy actors. These were, to all appearance, not bad men — not worse than men commonly are, but rather the contrary; men who possessed in a full, or somewhat more than a full, measure the religious, moral, and patriotic feelings of their time and people: the very kind of men who, in all times, our own included, have every chance of passing through life blameless and respected. The high priest who rent his garments when the words were pronounced, which, according to all the ideas of his

[1] Plato's *Apology*, which purports to give Socrates's own defense at the trial in which he was condemned. — *Editors.*

country, constituted the blackest guilt, was in all probability quite as sincere in his horror and indignation as the generality of respectable and pious men now are in the religious and moral sentiments they profess; and most of those who now shudder at his conduct, if they had lived in his time, and been born Jews, would have acted precisely as he did. Orthodox Christians who are tempted to think that those who stoned to death the first martyrs must have been worse men than they themselves are, ought to remember that one of those persecutors was Saint Paul.

Let us add one more example, the most striking of all, if the impressiveness of an error is measured by the wisdom and virtue of him who falls into it. If ever any one, possessed of power, had grounds for thinking himself the best and most enlightened among his contemporaries, it was the Emperor Marcus Aurelius. Absolute monarch of the whole civilized world, he preserved through life not only the most unblemished justice, but, what was less to be expected from his Stoical breeding, the tenderest heart. The few failings which are attributed to him were all on the side of indulgence; while his writings, the highest ethical product of the ancient mind, differ scarcely perceptibly, if they differ at all, from the most characteristic teachings of Christ. This man, a better Christian in all but the dogmatic sense of the word, than almost any of the ostensibly Christian sovereigns who have since reigned, persecuted Christianity. Placed at the summit of all the previous attainments of humanity, with an open, unfettered intellect, and a character which led him of himself to embody in his moral writings the Christian ideal, he yet failed to see that Christianity was to be a good and not an evil to the world, with his duties to which he was so deeply penetrated. Existing society he knew to be in a deplorable state. But such as it was, he saw, or thought he saw, that it was held together, and prevented from being worse, by belief and reverence of the received divinities. As a ruler of mankind, he deemed it his duty not to suffer society to fall in pieces; and saw not how, if its existing ties were removed, any others could be formed which

could again knit it together. The new religion openly aimed at dissolving these ties; unless, therefore, it was his duty to adopt that religion, it seemed to be his duty to put it down. Inasmuch, then, as the theology of Christianity did not appear to him true or of divine origin; inasmuch as this strange history of a crucified God was not credible to him, and a system which purported to rest entirely upon a foundation to him so wholly unbelievable could not be foreseen by him to be that renovating agency which, after all abatements, it has in fact proved to be,— the gentlest and most amiable of philosophers and rulers, under a solemn sense of duty, authorized the persecution of Christianity. To my mind this is one of the most tragical facts in all history. It is a bitter thought, how different a thing the Christianity of the world might have been, if the Christian faith had been adopted as the religion of the empire under the auspices of Marcus Aurelius instead of those of Constantine. But it would be equally unjust to him and false to truth, to deny that no one plea which can be urged for punishing anti-Christian teaching was wanting to Marcus Aurelius for punishing, as he did, the propagation of Christianity. No Christian more firmly believes that Atheism is false, and tends to the dissolution of society, than Marcus Aurelius believed the same things of Christianity; he who, of all men then living, might have been thought the most capable of appreciating it. Unless any one who approves of punishment for the promulgation of opinions, flatters himself that he is a wiser and better man than Marcus Aurelius — more deeply versed in the wisdom of his time, more elevated in his intellect above it — more earnest in his search for truth, or more single-minded in his devotion to it when found, — let him abstain from that assumption of the joint infallibility of himself and the multitude, which the great Antoninus made with so unfortunate a result.

Aware of the impossibility of defending the use of punishment for restraining irreligious opinions, by any argument which will not justify Marcus Antoninus, the enemies of religious freedom, when hard pressed, occasionally accept this consequence, and say,

with Dr. Johnson, that the persecutors of Christianity were in the right; that persecution is an ordeal through which truth ought to pass, and always passes successfully, legal penalties being, in the end, powerless against truth, though sometimes beneficially effective against mischievous errors. This is a form of the argument for religious intolerance, sufficiently remarkable not to be passed without notice.

A theory which maintains that truth may justifiably be persecuted because persecution cannot possibly do it any harm cannot be charged with being intentionally hostile to the reception of new truths; but we cannot commend the generosity of its dealing with the persons to whom mankind are indebted for them. To discover to the world something which deeply concerns it, and of which it was previously ignorant; to prove to it that it had been mistaken on some vital point of temporal or spiritual interest, is as important a service as a human being can render to his fellow creatures, and in certain cases, as in those of the early Christians and of the Reformers, those who think with Dr. Johnson believe it to have been the most precious gift which could be bestowed on mankind. That the authors of such splendid benefits should be requited by martyrdom; that their reward should be to be dealt with as the vilest of criminals, is not, upon this theory, a deplorable error and misfortune, for which humanity should mourn in sackcloth and ashes, but the normal and justifiable state of things. The propounder of a new truth, according to this doctrine, should stand, as stood, in the legislation of the Locrians, the proposer of a new law, with a halter round his neck, to be instantly tightened if the public assembly did not, on hearing his reasons, then and there adopt his proposition. People who defend this mode of treating benefactors cannot be supposed to set much value on the benefit; and I believe this view of the subject is mostly confined to the sort of persons who think that new truths may have been desirable once, but that we have had enough of them now.

But, indeed, the dictum that truth always triumphs over persecution, is one of those pleasant falsehoods which men repeat

after one another till they pass into commonplaces, but which all experience refutes. History teems with instances of truth put down by persecution. If not suppressed forever, it may be thrown back for centuries. To speak only of religious opinions: the Reformation broke out at least twenty times before Luther, and was put down. Arnold of Brescia was put down. Fra Dolcino was put down. Savonarola was put down. The Albigeois were put down. The Vaudois were put down. The Lollards were put down. The Hussites were put down. Even after the era of Luther, wherever persecution was persisted in, it was successful. In Spain, Italy, Flanders, the Austrian empire, Protestantism was rooted out; and, most likely, would have been so in England, had Queen Mary lived, or Queen Elizabeth died. Persecution has always succeeded, save where the heretics were too strong a party to be effectually persecuted. No reasonable person can doubt that Christianity might have been extirpated in the Roman Empire. It spread and became predominant, because the persecutions were only occasional, lasting but a short time, and separated by long intervals of almost undisturbed propagandism. It is a piece of idle sentimentality that truth, merely as truth, has any inherent power denied to error, of prevailing against the dungeon and the stake. Men are not more zealous for truth than they often are for error, and a sufficient application of legal or even of social penalties will generally succeed in stopping the propagation of either. The real advantage which truth has, consists in this: that when an opinion is true, it may be extinguished once, twice, or many times, but in the course of ages there will generally be found persons to rediscover it, until some one of its reappearances falls on a time when from favorable circumstances it escapes persecution until it has made such head as to withstand all subsequent attempts to suppress it.

It will be said that we do not now put to death the introducers of new opinions; we are not like our fathers who slew the prophets, we even build sepulchers to them. It is true we no longer put heretics to death: and the amount of penal infliction which modern feeling would probably tolerate, even against the most

obnoxious opinions, is not sufficient to extirpate them. But let us not flatter ourselves that we are yet free from the stain even of legal persecution. Penalties for opinion, or at least for its expression, still exist by law; and their enforcement is not, even in these times, so unexampled as to make it at all incredible that they may some day be revived in full force. In the year 1857, at the summer assizes of the county of Cornwall, an unfortunate man, said to be of unexceptionable conduct in all relations of life, was sentenced to twenty-one months' imprisonment, for uttering, and writing on a gate, some offensive words concerning Christianity. Within a month of the same time, at the Old Bailey, two persons, on two separate occasions, were rejected as jurymen, and one of them grossly insulted by the judge and by one of the counsel, because they honestly declared that they had no theological belief; and a third, a foreigner, for the same reason, was denied justice against a thief. This refusal of redress took place in virtue of the legal doctrine, that no person can be allowed to give evidence in a court of justice, who does not profess belief in a God (any god is sufficient) and in a future state; which is equivalent to declaring such persons to be outlaws, excluded from the protection of the tribunals; who may not only be robbed or assaulted with impunity, if no one but themselves, or persons of similar opinions, be present, but any one else may be robbed or assaulted with impunity, if the proof of the fact depends on their evidence. The assumption on which this is grounded is that the oath is worthless of a person who does not believe in a future state; a proposition which betokens much ignorance of history in those who assent to it (since it is historically true that a large proportion of infidels in all ages have been persons of distinguished integrity and honor); and would be maintained by no one who had the smallest conception how many of the persons in greatest repute with the world, both for virtues and for attainments, are well known, at least to their intimates, to be unbelievers. The rule, besides, is suicidal, and cuts away its own foundation. Under pretense that atheists must be liars, it admits the testimony of all atheists who are

willing to lie, and rejects only those who brave the obloquy of publicly confessing a detested creed rather than affirm a falsehood. A rule thus self-convicted of absurdity, so far as regards its professed purpose, can be kept in force only as a badge of hatred, a relic of persecution; a persecution, too, having the peculiarity that the qualification for undergoing it is the being clearly proved not to deserve it. The rule, and the theory it implies, are hardly less insulting to believers than to infidels. For if he who does not believe in a future state necessarily lies, it follows that they who do believe are only prevented from lying, if prevented they are, by the fear of hell. We will not do the authors and abettors of the rule the injury of supposing that the conception which they have formed of Christian virtue is drawn from their own consciousness.

These, indeed, are but rags and remnants of persecution, and may be thought to be not so much an indication of the wish to persecute as an example of that very frequent infirmity of English minds, which makes them take a preposterous pleasure in the assertion of a bad principle, when they are no longer bad enough to desire to carry it really into practice. But unhappily there is no security in the state of the public mind that the suspension of worse forms of legal persecution, which has lasted for about the space of a generation, will continue. In this age the quiet surface of routine is as often ruffled by attempts to resuscitate past evils, as to introduce new benefits. What is boasted of at the present time as the revival of religion is always, in narrow and uncultivated minds, at least as much the revival of bigotry; and where there is the strong permanent leaven of intolerance in the feelings of a people, which at all times abides in the middle classes of this country, it needs but little to provoke them into actively persecuting those whom they have never ceased to think proper objects of persecution. For it is this: it is the opinions men entertain, and the feelings they cherish, respecting those who disown the beliefs they deem important, which makes this country not a place of mental freedom. For a long time past, the chief mischief of the legal penalties is that

they strengthen the social stigma. It is that stigma which is really effective, and so effective is it that the profession of opinions which are under the law of society is much less common in England than is, in many other countries, the avowal of those which incur risk of judicial punishment. In respect to all persons but those whose pecuniary circumstances make them independent of the good will of other people, opinion, on this subject, is as efficacious as law; men might as well be imprisoned, as excluded from the means of earning their bread. Those whose bread is already secured, and who desire no favors from men in power, or from bodies of men, or from the public, have nothing to fear from the open avowal of any opinions, but to be ill-thought of and ill-spoken of, and this it ought not to require a very heroic mold to enable them to bear. There is no room for any appeal *ad misericordiam*[1] in behalf of such persons. But though we do not now inflict so much evil on those who think differently from us, as it was formerly our custom to do, it may be that we do ourselves as much evil as ever by our treatment of them. Socrates was put to death, but the Socratic philosophy rose like the sun in heaven, and spread its illumination over the whole intellectual firmament. Christians were cast to the lions, but the Christian church grew up a stately and spreading tree, overtopping the older and less vigorous growths, and stifling them by its shade. Our merely social intolerance kills no one, roots out no opinions, but induces men to disguise them, or to abstain from any active effort for their diffusion. With us, heretical opinions do not perceptibly gain, or even lose, ground in each decade or generation; they never blaze out far and wide, but continue to smolder in the narrow circles of thinking and studious persons among whom they originate, without ever lighting up the general affairs of mankind with either a true or a deceptive light. And thus is kept up a state of things very satisfactory to some minds, because, without the unpleasant process of fining or imprisoning anybody, it maintains all prevailing opinions outwardly undisturbed, while it does not absolutely interdict the exercise of

[1] To sympathy. — *Editors.*

reason by dissentients afflicted with the malady of thought. A convenient plan for having peace in the intellectual world, and keeping all things going on therein very much as they do already. But the price paid for this sort of intellectual pacification is the sacrifice of the entire moral courage of the human mind. A state of things in which a large portion of the most active and inquiring intellects find it advisable to keep the genuine principles and grounds of their convictions within their own breasts, and attempt, in what they address to the public, to fit as much as they can of their own conclusions to premises which they have internally renounced, cannot send forth the open, fearless characters, and logical, consistent intellects who once adorned the thinking world. The sort of men who can be looked for under it are either mere conformers to commonplace, or timeservers for truth, whose arguments on all great subjects are meant for their hearers, and are not those which have convinced themselves. Those who avoid this alternative, do so by narrowing their thoughts and interest to things which can be spoken of without venturing within the region of principles ; that is, to small practical matters, which would come right of themselves, if but the minds of mankind were strengthened and enlarged, and which will never be made effectually right until then; while that which would strengthen and enlarge men's minds, free and daring speculation on the highest subjects, is abandoned.

Those in whose eyes this reticence on the part of heretics is no evil, should consider in the first place that in consequence of it there is never any fair and thorough discussion of heretical opinions; and that such of them as could not stand such a discussion, though they may be prevented from spreading, do not disappear. But it is not the minds of heretics that are deteriorated most, by the ban placed on all inquiry which does not end in the orthodox conclusions. The greatest harm done is to those who are not heretics, and whose whole mental development is cramped, and their reason cowed, by the fear of heresy. Who can compute what the world loses in the multitude of promising intellects combined with timid characters, who dare not fol-

low out any bold, vigorous, independent train of thought, lest it should land them in something which would admit of being considered irreligious or immoral? Among them we may occasionally see some man of deep conscientiousness, and subtle and refined understanding, who spends a life in sophisticating with an intellect which he cannot silence, and exhausts the resources of ingenuity in attempting to reconcile the promptings of his conscience and reason with orthodoxy, which yet he does not, perhaps, to the end succeed in doing. No one can be a great thinker who does not recognize that as a thinker it is his first duty to follow his intellect to whatever conclusions it may lead. Truth gains more even by the errors of one who, with due study and preparation, thinks for himself, than by the true opinions of those who only hold them because they do not suffer themselves to think. Not that it is solely, or chiefly, to form great thinkers, that freedom of thinking is required. On the contrary, it is as much, and even more indispensable, to enable average human beings to attain the mental stature which they are capable of. There have been, and may again be, great individual thinkers, in a general atmosphere of mental slavery. But there never has been, nor ever will be, in that atmosphere, an intellectually active people. Where any people has made a temporary approach to such a character, it has been because the dread of heterodox speculation was for a time suspended. Where there is a tacit convention that principles are not to be disputed; where the discussion of the greatest questions which can occupy humanity is considered to be closed, we cannot hope to find that generally high scale of mental activity which has made some periods of history so remarkable. Never when controversy avoided the subjects which are large and important enough to kindle enthusiasm was the mind of a people stirred up from its foundations, and the impulse given which raised even persons of the most ordinary intellect to something of the dignity of thinking beings. Of such we have had an example in the condition of Europe during the times immediately following the Reformation; another, though limited to the Continent and to a more cultivated class, in the

speculative movement of the latter half of the eighteenth century; and a third, of still briefer duration, in the intellectual fermentation of Germany during the Goethian and Fichtean period. These periods differed widely in the particular opinions which they developed; but were alike in this, that during all three the yoke of authority was broken. In each, an old mental despotism had been thrown off, and no new one had yet taken its place. The impulse given at these three periods has made Europe what it now is. Every single improvement which has taken place either in the human mind or in institutions, may be traced distinctly, to one or other of them. Appearances have for some time indicated that all three impulses are well nigh spent; and we can expect no fresh start, until we again assert our mental freedom.

Let us now pass to the second division of the argument, and dismissing the supposition that any of the received opinions may be false, let us assume them to be true, and examine into the worth of the manner in which they are likely to be held, when their truth is not freely and openly canvassed. However unwillingly a person who has a strong opinion may admit the possibility that his opinion may be false, he ought to be moved by the consideration that however true it may be, if it is not fully, frequently, and fearlessly discussed, it will be held as a dead dogma, not a living truth.

There is a class of persons (happily not quite so numerous as formerly) who think it enough if a person assents undoubtingly to what they think true, though he has no knowledge whatever of the grounds of the opinion, and could not make a tenable defense of it against the most superficial objections. Such persons, if they can once get their creed taught from authority, naturally think that no good, and some harm, comes of its being allowed to be questioned. Where their influence prevails, they make it nearly impossible for the received opinion to be rejected wisely and considerately, though it may still be rejected rashly and ignorantly; for to shut out discussion entirely is seldom possible, and when it once gets in, beliefs not grounded on conviction are

apt to give way before the slightest semblance of an argument. Waiving, however, this possibility, — assuming that the true opinion abides in the mind, but abides as a prejudice, a belief independent of, and proof against, argument, — this is not the way in which truth ought to be held by a rational being. This is not knowing the truth. Truth, thus held, is but one superstition the more, accidentally clinging to the words which enunciate a truth.

If the intellect and judgment of mankind ought to be cultivated, a thing which Protestants at least do not deny, on what can these faculties be more appropriately exercised by any one than on the things which concern him so much that it is considered necessary for him to hold opinions on them? If the cultivation of the understanding consists in one thing more than in another, it is surely in learning the grounds of one's own opinions. Whatever people believe on subjects on which it is of the first importance to believe rightly, they ought to be able to defend against at least the common objections. But, some one may say, "Let them be *taught* the grounds of their opinions. It does not follow that opinions must be merely parroted because they are never heard controverted. Persons who learn geometry do not simply commit the theorems to memory, but understand and learn likewise the demonstrations; and it would be absurd to say that they remain ignorant of the grounds of geometrical truths, because they never hear any one deny, and attempt to disprove them." Undoubtedly: and such teaching suffices on a subject like mathematics, where there is nothing at all to be said on the wrong side of the question. The peculiarity of the evidence of mathematical truths is, that all the argument is on one side. There are no objections, and no answers to objections. But on every subject on which difference of opinion is possible, the truth depends on a balance to be struck between two sets of conflicting reasons. Even in natural philosophy there is always some other explanation possible of the same facts; some geocentric theory instead of heliocentric, some phlogiston instead of oxygen; and it has to be shown why that other theory cannot be the true one;

and until this is shown, and until we know how it is shown, we do not understand the grounds of our opinion. But when we turn to subjects infinitely more complicated — to morals, religion, politics, social relations, and the business of life — three fourths of the arguments for every disputed opinion consist in dispelling the appearances which favor some opinion different from it. The greatest orator, save one, of antiquity, has left it on record that he always studied his adversary's case with as great, if not with still greater, intensity than even his own. What Cicero practiced as the means of forensic success, requires to be imitated by all who study any subject in order to arrive at the truth. He who knows only his own side of the case knows little of that. His reasons may be good, and no one may have been able to refute them. But if he is equally unable to refute the reasons on the opposite side; if he does not so much as know what they are, he has no ground for preferring either opinion. The rational position for him would be suspension of judgment, and unless he contents himself with that, he is either led by authority, or adopts, like the generality of the world, the side to which he feels most inclination. Nor is it enough that he should hear the arguments of adversaries from his own teachers, presented as they state them, and accompanied by what they offer as refutations. That is not the way to do justice to the arguments, or bring them into real contact with his own mind. He must be able to hear them from persons who actually believe them; who defend them in earnest, and do their very utmost for them. He must know them in their most plausible and persuasive form; he must feel the whole force of the difficulty which the true view of the subject has to encounter and dispose of; else he will never really possess himself of the portion of truth which meets and removes that difficulty. Ninety-nine in a hundred of what are called educated men are in this condition; even of those who can argue fluently for their opinions. Their conclusion may be true, but it might be false for anything they know; they have never thrown themselves into the mental position of those who think differently from them, and considered what such persons may

have to say; and consequently they do not, in any proper sense of the word, know the doctrine which they themselves profess. They do not know those parts of it which explain and justify the remainder; the considerations which show that a fact which seemingly conflicts with another is reconcilable with it, or that of two apparently strong reasons, one and not the other ought to be preferred. All that part of the truth which turns the scale and decides the judgment of a completely informed mind, they are strangers to; nor is it ever really known, but to those who have attended equally and impartially to both sides, and endeavored to see the reasons of both in the strongest light. So essential is this discipline to a real understanding of moral and human subjects, that if opponents of all important truths do not exist, it is indispensable to imagine them, and supply them with the strongest arguments which the most skillful devil's advocate can conjure up.

To abate the force of these considerations, an enemy of free discussion may be supposed to say that there is no necessity for mankind in general to know and understand all that can be said against or for their opinions by philosophers and theologians. That it is not needful for common men to be able to expose all the misstatements or fallacies of an ingenious opponent. That it is enough if there is always somebody capable of answering them, so that nothing likely to mislead uninstructed persons remains unrefuted. That simple minds, having been taught the obvious grounds of the truths inculcated on them, may trust to authority for the rest, and being aware that they have neither knowledge nor talent to resolve every difficulty which can be raised, may repose in the assurance that all those which have been raised have been or can be answered, by those who are specially trained to the task.

Conceding to this view of the subject the utmost that can be claimed for it by those most easily satisfied with the amount of understanding of truth which ought to accompany the belief of it; even so, the argument for free discussion is no way weakened. For even this doctrine acknowledges that mankind ought to have

a rational assurance that all objections have been satisfactorily answered; and how are they to be answered if that which requires to be answered is not spoken? or how can the answer be known to be satisfactory if the objectors have no opportunity of showing that it is unsatisfactory? If not the public, at least the philosophers and theologians who are to resolve the difficulties, must make themselves familiar with those difficulties in their most puzzling form; and this cannot be accomplished unless they are freely stated and placed in the most advantageous light which they admit of. The Catholic Church has its own way of dealing with this embarrassing problem. It makes a broad separation between those who can be permitted to receive its doctrines on conviction and those who must accept them on trust. Neither, indeed, are allowed any choice as to what they will accept; but the clergy, such at least as can be fully confided in, may admissibly and meritoriously make themselves acquainted with the arguments of opponents, in order to answer them, and may, therefore, read heretical books; the laity, not unless by special permission, hard to be obtained. This discipline recognizes knowledge of the enemy's case as beneficial to the teachers, but finds means, consistent with this, of denying it to the rest of the world; thus giving to the *élite* more mental culture, though not more mental freedom, than it allows to the mass. By this device it succeeds in obtaining the kind of mental superiority which its purposes require; for though culture without freedom never made a large and liberal mind, it can make a clever *nisi prius* advocate of a cause. But in countries professing Protestantism this resource is denied; since Protestants hold, at least in theory, that the responsibility for the choice of a religion must be borne each for himself, and cannot be thrown off upon teachers. Besides, in the present state of the world, it is practically impossible that writings which are read by the instructed can be kept from the uninstructed. If the teachers of mankind are to be cognizant of all that they ought to know, everything must be free to be written and published without restraint.

If, however, the mischievous operation of the absence of free discussion, when the received opinions are true, were confined to leaving men ignorant of the grounds of those opinions, it might be thought that this, if an intellectual is no moral evil, and does not affect the worth of the opinions, regarded in their influence on the character. The fact, however, is that not only the grounds of the opinion are forgotten in the absence of discussion, but too often the meaning of the opinion itself. The words which convey it cease to suggest ideas, or suggest only a small portion of those they were originally employed to communicate. Instead of a vivid conception and a living belief, there remain only a few phrases retained by rote; or, if any part, the shell and husk only of the meaning is retained, the finer essence being lost. The great chapter in human history which this fact occupies and fills cannot be too earnestly studied and meditated on.

It is illustrated in the experience of almost all ethical doctrines and religious creeds. They are all full of meaning and vitality to those who originate them, and to the direct disciples of the originators. Their meaning continues to be felt in undiminished strength, and is perhaps brought out into even fuller consciousness, so long as the struggle lasts to give the doctrine or creed an ascendancy over other creeds. At last it either prevails, and becomes the general opinion, or its progress stops; it keeps possession of the ground it has gained, but ceases to spread further. When either of these results has become apparent, controversy on the subject flags, and gradually dies away. The doctrine has taken its place, if not as a received opinion, as one of the admitted sects or divisions of opinion; those who hold it have generally inherited, not adopted it; and conversion from one of these doctrines to another, being now an exceptional fact, occupies little place in the thoughts of their professors. Instead of being, as at first, constantly on the alert either to defend themselves against the world, or to bring the world over to them, they have subsided into acquiescence, and neither listen, when they can help it, to arguments against their creed, nor trouble dissentients (if there be such) with arguments in its favor.

From this time may usually be dated the decline in the living power of the doctrine. We often hear the teachers of all creeds lamenting the difficulty of keeping up in the minds of believers a lively apprehension of the truth which they nominally recognize, so that it may penetrate the feelings, and acquire a real mastery over the conduct. No such difficulty is complained of while the creed is still fighting for its existence; even the weaker combatants then know and feel what they are fighting for, and the difference between it and other doctrines; in that period of every creed's existence, not a few persons may be found who have realized its fundamental principles in all the forms of thought, have weighed and considered them in all their important bearings, and have experienced the full effect on the character which belief in that creed ought to produce in a mind thoroughly imbued with it. But when it has come to be an hereditary creed, and to be received passively, not actively; — when the mind is no longer compelled, in the same degree as at first, to exercise its vital powers on the questions which its belief presents to it, there is a progressive tendency to forget all of the belief except the formularies, or to give it a dull and torpid assent, as if accepting it on trust dispenses with the necessity of realizing it in consciousness, or testing it by personal experience; until it almost ceases to connect itself at all with the inner life of the human being. Then are seen the cases, so frequent in this age of the world as almost to form the majority, in which the creed remains, as it were, outside the mind, incrusting and petrifying it against all other influences addressed to the higher parts of our nature; manifesting its power by not suffering any fresh and living conviction to get in, but itself doing nothing for the mind or heart, except standing sentinel over them to keep them vacant.

To what an extent doctrines intrinsically fitted to make the deepest impression upon the mind may remain in it as dead beliefs, without being ever realized in the imagination, the feelings, or the understanding, is exemplified by the manner in which the majority of believers hold the doctrines of Christianity.

By Christianity I here mean what is accounted such by all churches and sects — the maxims and precepts contained in the New Testament. These are considered sacred, and accepted as laws, by all professing Christians. Yet it is scarcely too much to say that not one Christian in a thousand guides or tests his individual conduct by reference to those laws. The standard to which he does refer it is the custom of his nation, his class, or his religious profession. He has thus, on the one hand, a collection of ethical maxims, which he believes to have been vouchsafed to him by infallible wisdom as rules for his government; and on the other, a set of everyday judgments and practices, which go a certain length with some of those maxims, not so great a length with others, stand in direct opposition to some, and are, on the whole, a compromise between the Christian creed and the interests and suggestions of worldly life. To the first of these standards he gives his homage; to the other his real allegiance. All Christians believe that the blessed are the poor and humble, and those who are ill-used by the world; that it is easier for a camel to pass through the eye of a needle than for a rich man to enter the kingdom of heaven; that they should judge not, lest they should be judged; that they should swear not at all; that they should love their neighbor as themselves; that if one take their cloak, they should give him their coat also; that they should take no thought for the morrow; that if they would be perfect, they should sell all that they have and give it to the poor. They are not insincere when they say that they believe these things. They do believe them, as people believe what they have always heard lauded and never discussed. But in the sense of that living belief which regulates conduct, they believe these doctrines just up to the point to which it is usual to act upon them. The doctrines in their integrity are serviceable to pelt adversaries with; and it is understood that they are to be put forward (when possible) as the reasons for whatever people do that they think laudable. But any one who reminded them that the maxims require an infinity of things which they never even think of doing, would gain nothing but to

be classed among those very unpopular characters who affect to be better than other people. The doctrines have no hold on ordinary believers — are not a power in their minds. They have an habitual respect for the sound of them, but no feeling which spreads from the words to the things signified, and forces the mind to take *them* in, and make them conform to the formula. Whenever conduct is concerned, they look round for Mr. A and B to direct them how far to go in obeying Christ.

Now we may be well assured that the case was not thus, but far otherwise, with the early Christians. Had it been thus, Christianity never would have expanded from an obscure sect of the despised Hebrews into the religion of the Roman Empire. When their enemies said, "See how these Christians love one another" (a remark not likely to be made by anybody now), they assuredly had a much livelier feeling of the meaning of their creed than they have ever had since. And to this cause, probably, it is chiefly owing that Christianity now makes so little progress in extending its domain, and, after eighteen centuries, is still nearly confined to Europeans and the descendants of Europeans. Even with the strictly religious, who are much in earnest about their doctrines, and attach a greater amount of meaning to many of them than people in general, it commonly happens that the part which is thus comparatively active in their minds is that which was made by Calvin, or Knox, or some such person much nearer in character to themselves. The sayings of Christ coexist passively in their minds, producing hardly any effect beyond what is caused by mere listening to words too amiable and bland. There are many reasons, doubtless, why doctrines which are the badge of a sect retain more of their vitality than those common to all recognized sects, and why more pains are taken by teachers to keep their meaning alive; but one reason certainly is, that the peculiar doctrines are more questioned, and have to be oftener defended against open gainsayers. Both teachers and learners go to sleep at their post, as soon as there is no enemy in the field.

The same thing holds true, generally speaking, of all traditional doctrines — those of prudence and knowledge of life, as well as of

morals or religion. All languages and literatures are full of general observations on life, both as to what it is, and how to conduct one's self in it; observations which everybody knows, which everybody repeats, or hears with acquiescence, which are received as truisms, yet of which most people first truly learn the meaning, when experience, generally of a painful kind, has made it a reality to them. How often, when smarting under some unforeseen misfortune or disappointment, does a person call to mind some proverb or common saying familiar to him all his life, the meaning of which, if he had ever before felt it as he does now, would have saved him from the calamity. There are, indeed, reasons for this other than the absence of discussion; there are many truths of which the full meaning *cannot* be realized until personal experience has brought it home. But much more of the meaning even of these would have been understood, and what was understood would have been far more deeply impressed on the mind, if the man had been accustomed to hear it argued *pro* and *con* by people who did understand it. The fatal tendency of mankind to leave off thinking about a thing when it is no longer doubtful is the cause of half their errors. A contemporary author has well spoken of "the deep slumber of a decided opinion."

But what! (it may be asked) Is the absence of unanimity an indispensable condition of true knowledge? Is it necessary that some part of mankind should persist in error, to enable any to realize the truth? Does a belief cease to be real and vital as soon as it is generally received — and is a proposition never thoroughly understood and felt unless some doubt of it remains? As soon as mankind have unanimously accepted a truth, does the truth perish within them? The highest aim and best result of improved intelligence, it has hitherto been thought, is to unite mankind more and more in the acknowledgment of all important truths: and does the intelligence only last as long as it has not achieved its object? Do the fruits of conquest perish by the very completeness of the victory?

I affirm no such thing. As mankind improve, the number

of doctrines which are no longer disputed or doubted will be constantly on the increase: and the well-being of mankind may almost be measured by the number and gravity of the truths which have reached the point of being uncontested. The cessation, on one question after another, of serious controversy, is one of the necessary incidents of the consolidation of opinion; a consolidation as salutary in the case of true opinions, as it is dangerous and noxious when the opinions are erroneous. But though this gradual narrowing of the bounds of diversity of opinion is necessary in both senses of the term, being at once inevitable and indispensable, we are not therefore obliged to conclude that all its consequences must be beneficial. The loss of so important an aid to the intelligent and living apprehension of a truth as is afforded by the necessity of explaining it to, or defending it against, opponents, though not sufficient to outweigh, is no trifling drawback from, the benefit of its universal recognition. Where this advantage can no longer be had, I confess I should like to see the teachers of mankind endeavoring to provide a substitute for it; some contrivance for making the difficulties of the question as present to the learner's consciousness as if they were pressed upon him by a dissentient champion, eager for his conversion.

But instead of seeking contrivances for this purpose, they have lost those they formerly had. The Socratic dialectics, so magnificently exemplified in the dialogues of Plato, were a contrivance of this description. They were essentially a negative discussion of the great questions of philosophy and life, directed with consummate skill to the purpose of convincing any one who had merely adopted the commonplaces of received opinion, that he did not understand the subject — that he as yet attached no definite meaning to the doctrines he professed; in order that, becoming aware of his ignorance, he might be put in the way to attain a stable belief, resting on a clear apprehension both of the meaning of doctrines and of their evidence. The school disputations of the Middle Ages had a somewhat similar object. They were intended to make sure that the pupil understood his own

opinion and (by necessary correlation) the opinion opposed to it, and could enforce the grounds of the one and confute those of the other. These last-mentioned contests had, indeed, the incurable defect that the premises appealed to were taken from authority, not from reason; and, as a discipline to the mind, they were in every respect inferior to the powerful dialectics which formed the intellects of the "Socratici viri:" but the modern mind owes far more to both than it is generally willing to admit, and the present modes of education contain nothing which in the smallest degree supplies the place either of the one or of the other. A person who derives all his instruction from teachers or books, even if he escape the besetting temptation of contenting himself with cram, is under no compulsion to hear both sides; accordingly, it is far from a frequent accomplishment, even among thinkers, to know both sides; and the weakest part of what everybody says in defense of his opinion is what he intends as a reply to antagonists. It is the fashion of the present time to disparage negative logic — that which points out weaknesses in theory or errors in practice without establishing positive truths. Such negative criticism would, indeed, be poor enough as an ultimate result; but as a means to attaining any positive knowledge or conviction worthy the name, it cannot be valued too highly; and until people are again systematically trained to it, there will be few great thinkers and a low general average of intellect, in any but the mathematical and physical departments of speculation. On any other subject no one's opinions deserve the name of knowledge, except so far as he has either had forced upon him by others, or gone through of himself, the same mental process which would have been required of him in carrying on an active controversy with opponents. That, therefore, which when absent, it is so indispensable, but so difficult, to create, how worse than absurd is it to forego, when spontaneously offering itself! If there are any persons who contest a received opinion, or who will do so if law or opinion will let them, let us thank them for it, open our minds to listen to them, and rejoice that there is some one to do for us what we otherwise ought, if we have any regard

for either the certainty or the vitality of our convictions, to do with much greater labor for ourselves.

It still remains to speak of one of the principal causes which make diversity of opinion advantageous, and will continue to do so until mankind shall have entered a stage of intellectual advancement which at present seems at an incalculable distance. We have hitherto considered only two possibilities: that the received opinion may be false, and some other opinion, consequently, true; or that, the received opinion being true, a conflict with the opposite error is essential to a clear apprehension and deep feeling of its truth. But there is a commoner case than either of these; when the conflicting doctrines, instead of being one true and the other false, share the truth between them; and the nonconforming opinion is needed to supply the remainder of the truth, of which the received doctrine embodies only a part. Popular opinions, on subjects not palpable to sense, are often true, but seldom or never the whole truth. They are a part of the truth; sometimes a greater, sometimes a smaller part, but exaggerated, distorted, and disjoined from the truths by which they ought to be accompanied and limited. Heretical opinions, on the other hand, are generally some of these suppressed and neglected truths, bursting the bonds which kept them down, and either seeking reconciliation with the truth contained in the common opinion, or fronting it as enemies, and setting themselves up, with similar exclusiveness, as the whole truth. The latter case is hitherto the more frequent, as, in the human mind, one-sidedness has always been the rule, and many-sidedness the exception. Hence, even in revolutions of opinion, one part of the truth usually sets while the other rises. Even progress, which ought to superadd, for the most part only substitutes one partial and incomplete truth for another; improvement consisting chiefly in this, that the new fragment of truth is more wanted, more adapted to the needs of the time, than that which it displaces. Such being the partial character of prevailing opinions, even when resting on a true foundation, every opinion

which embodies somewhat of the portion of truth which the common opinion omits, ought to be considered precious, with whatever amount of error and confusion that truth may be blended. No sober judge of human affairs will feel bound to be indignant because those who force on our notice truths which we should otherwise have overlooked, overlook some of those which we see. Rather, he will think that so long as popular truth is one-sided, it is more desirable than otherwise that unpopular truth should have one-sided asserters too; such being usually the most energetic, and the most likely to compel reluctant attention to the fragment of wisdom which they proclaim as if it were the whole.

Thus, in the eighteenth century, when nearly all the instructed, and all those of the uninstructed who were led by them, were lost in admiration of what is called civilization, and of the marvels of modern science, literature, and philosophy, and while greatly overrating the amount of unlikeness between the men of modern and those of ancient times, indulged the belief that the whole of the difference was in their own favor; with what a salutary shock did the paradoxes of Rousseau explode like bombshells in the midst, dislocating the compact mass of one-sided opinion, and forcing its elements to recombine in a better form and with additional ingredients. Not that the current opinions were on the whole farther from the truth than Rousseau's were; on the contrary, they were nearer to it; they contained more of positive truth, and very much less of error. Nevertheless, there lay in Rousseau's doctrine, and has floated down the stream of opinion along with it, a considerable amount of exactly those truths which the popular opinion wanted; and these are the deposit which was left behind when the flood subsided. The superior worth of simplicity of life, the enervating and demoralizing effect of the trammels and hypocrisies of artificial society, are ideas which have never been entirely absent from cultivated minds since Rousseau wrote; and they will in time produce their due effect, though at present needing to be asserted as much as ever, and to be asserted by deeds, for words, on this subject, have nearly exhausted their power.

In politics, again, it is almost a commonplace, that a party of order or stability, and a party of progress or reform, are both necessary elements of a healthy state of political life; until the one or the other shall have so enlarged its mental grasp as to be a party equally of order and of progress, knowing and distinguishing what is fit to be preserved from what ought to be swept away. Each of these modes of thinking derives its utility from the deficiencies of the other; but it is in a great measure the opposition of the other that keeps each within the limits of reason and sanity. Unless opinions favorable to democracy and to aristocracy, to property and to equality, to coöperation and to competition, to luxury and to abstinence, to sociality and individuality, to liberty and discipline, and all the other standing antagonisms of practical life, are expressed with equal freedom, and enforced and defended with equal talent and energy, there is no chance of both elements obtaining their due; one scale is sure to go up, and the other down. Truth, in the great practical concerns of life, is so much a question of the reconciling and combining of opposites, that very few have minds sufficiently capacious and impartial to make the adjustment with an approach to correctness, and it has to be made by the rough process of a struggle between combatants fighting under hostile banners. On any of the great open questions just enumerated, if either of the two opinions has a better claim than the other, not merely to be tolerated, but to be encouraged and countenanced, it is the one which happens at the particular time and place to be in a minority. That is the opinion which, for the time being, represents the neglected interests, the side of human well-being which is in danger of obtaining less than its share. I am aware that there is not, in this country, any intolerance of differences of opinion on most of these topics. They are adduced to show, by admitted and multiplied examples, the universality of the fact, that only through diversity of opinion is there, in the existing state of human intellect, a chance of fair play to all sides of the truth. When there are persons to be found who form an exception to the apparent unanimity of the world on any subject, even if the world is in the

right, it is always probable that dissentients have something worth hearing to say for themselves, and that truth would lose something by their silence.

It may be objected, "But *some* received principles, especially on the highest and most vital subjects, are more than half-truths. The Christian morality, for instance, is the whole truth on that subject, and if any one teaches a morality which varies from it, he is wholly in error." As this is of all cases the most important in practice, none can be fitter to test the general maxim. But before pronouncing what Christian morality is or is not, it would be desirable to decide what is meant by Christian morality. If it means the morality of the New Testament, I wonder that any one who derives his knowledge of this from the book itself, can suppose that it was announced or intended, as a complete doctrine of morals. The Gospel always refers to a preëxisting morality, and confines its precepts to the particulars in which that morality was to be corrected, or superseded by a wider and higher; expressing itself, moreover, in terms most general, often impossible to be interpreted literally, and possessing rather the impressiveness of poetry or eloquence than the precision of legislation. To extract from it a body of ethical doctrine has never been possible without eking it out from the Old Testament, that is, from a system elaborate indeed, but in many respects barbarous, and intended only for a barbarous people. St. Paul, a declared enemy to this Judaical mode of interpreting the doctrine and filling up the scheme of his Master, equally assumes a preëxisting morality, namely, that of the Greeks and Romans; and his advice to Christians is in a great measure a system of accommodation to that; even to the extent of giving an apparent sanction to slavery. What is called Christian, but should rather be termed theological, morality, was not the work of Christ or the Apostles, but is of much later origin, having been gradually built up by the Catholic Church of the first five centuries, and though not implicitly adopted by moderns and Protestants, has been much less modified by them than might have been expected. For the most part, indeed, they have con-

tented themselves with cutting off the additions which had been made to it in the Middle Ages, each sect supplying the place by fresh additions, adapted to its own character and tendencies. That mankind owe a great debt to this morality, and to its early teachers, I should be the last person to deny; but I do not scruple to say of it, that it is, in many important points, incomplete and one-sided, and that unless ideas and feelings, not sanctioned by it, had contributed to the formation of European life and character, human affairs would have been in a worse condition than they now are. Christian morality (so called) has all the characters of a reaction; it is, in great part, a protest against Paganism. Its ideal is negative rather than positive; passive rather than active; Innocence rather than Nobleness; Abstinence from Evil, rather than energetic Pursuit of Good: in its precepts (as has been well said) "thou shalt not" predominates unduly over "thou shalt." In its horror of sensuality, it made an idol of asceticism, which has been gradually compromised away into one of legality. It holds out the hope of heaven and the threat of hell, as the appointed and appropriate motives to a virtuous life: in this falling far below the best of the ancients, and doing what lies in it to give to human morality an essentially selfish character, by disconnecting each man's feelings of duty from the interests of his fellow-creatures, except so far as a self-interested inducement is offered to him for consulting them. It is essentially a doctrine of passive obedience; it inculcates submission to all authorities found established; who indeed are not to be actively obeyed when they command what religion forbids, but who are not to be resisted, far less rebelled against, for any amount of wrong to ourselves. And while, in the morality of the best Pagan nations, duty to the state holds even a disproportionate place, infringing on the just liberty of the individual; in purely Christian ethics, that grand department of duty is scarcely noticed or acknowledged. It is in the Koran, not the New Testament, that we read the maxim—"A ruler who appoints any man to an office, when there is in his dominions another man better qualified for it, sins against God and against the State." What little recogni-

tion the idea of obligation to the public obtains in modern morality, is derived from Greek and Roman sources, not from Christian; as, even in the morality of private life, whatever exists of magnanimity, highmindedness, personal dignity, even the sense of honor, is derived from the purely human, not the religious part of our education, and never could have grown out of a standard of ethics in which the only worth, professedly recognized, is that of obedience.

I am as far as any one from pretending that these defects are necessarily inherent in the Christian ethics, in every manner in which it can be conceived, or that the many requisites of a complete moral doctrine which it does not contain, do not admit of being reconciled with it. Far less would I insinuate this of the doctrines and precepts of Christ himself. I believe that the sayings of Christ are all that I can see any evidence of their having been intended to be; that they are irreconcilable with nothing which a comprehensive morality requires; that everything which is excellent in ethics may be brought within them, with no greater violence to their language than has been done to it by all who have attempted to deduce from them any practical system of conduct whatever. But it is quite consistent with this to believe that they contain, and were meant to contain, only a part of the truth; that many essential elements of the highest morality are among the things which are not provided for, nor intended to be provided for, in the recorded deliverances of the Founder of Christianity, and which have been entirely thrown aside in the system of ethics erected on the basis of those deliverances by the Christian Church. And this being so, I think it a great error to persist in attempting to find in the Christian doctrine that complete rule for our guidance, which its author intended it to sanction and enforce, but only partially to provide. I believe, too, that this narrow theory is becoming a grave practical evil, detracting greatly from the value of the moral training and instruction, which so many well-meaning persons are now at length exerting themselves to promote. I much fear that by attempting to form the mind and feelings on an exclusively re-

ligious type, and discarding those secular standards (as for want of a better name they may be called) which heretofore coexisted with and supplemented the Christian ethics, receiving some of its spirit, and infusing into it some of theirs, there will result, and is even now resulting, a low, abject, servile type of character, which, submit itself as it may to what it deems the Supreme Will, is incapable of rising to or sympathizing in the conception of Supreme Goodness. I believe that other ethics than any which can be evolved from exclusively Christian sources, must exist side by side with Christian ethics to produce the moral regeneration of mankind; and that the Christian system is no exception to the rule, that in an imperfect state of the human mind, the interests of truth require a diversity of opinions. It is not necessary that in ceasing to ignore the moral truths not contained in Christianity, men should ignore any of those which it does contain. Such prejudice, or oversight, when it occurs, is altogether an evil; but it is one from which we cannot hope to be always exempt, and must be regarded as the price paid for an inestimable good. The exclusive pretension made by a part of the truth to be the whole, must and ought to be protested against, and if a reactionary impulse should make the protestors unjust in their turn, this one-sidedness, like the other, may be lamented, but must be tolerated. If Christians would teach infidels to be just to Christianity, they should themselves be just to infidelity. It can do truth no service to blink the fact, known to all who have the most ordinary acquaintance with literary history, that a large portion of the noblest and most valuable moral teaching has been the work, not only of men who did not know, but of men who knew and rejected, the Christian faith.

I do not pretend that the most unlimited use of the freedom of enunciating all possible opinions would put an end to the evils of religious or philosophical sectarianism. Every truth which men of narrow capacity are in earnest about, is sure to be asserted, inculcated, and in many ways even acted on, as if no other truth existed in the world, or at all events none that could limit or qualify the first. I acknowledge that the tendency of all opin-

ions to become sectarian is not cured by the freest discussion, but is often heightened and exacerbated thereby; the truth which ought to have been, but was not, seen, being rejected all the more violently because proclaimed by persons regarded as opponents. But it is not on the impassioned partisan, it is on the calmer and more disinterested bystander, that this collision of opinion works its salutary effect. Not the violent conflict between parts of the truth, but the quiet suppression of half of it, is the formidable evil: there is always hope when people are forced to listen to both sides; it is when they attend only to one that errors harden into prejudices, and truth itself ceases to have the effect of truth, by being exaggerated into falsehood. And since there are few mental attributes more rare than that judicial faculty which can sit in intelligent judgment between two sides of a question, of which only one is represented by an advocate before it, truth has no chance but in proportion as every side of it, every opinion which embodies any fraction of the truth, not only finds advocates, but is so advocated as to be listened to.

We have now recognized the necessity to the mental well-being of mankind (on which all their other well-being depends) of freedom of opinion, and freedom of the expression of opinion, on four distinct grounds; which we will now briefly recapitulate.

First, if any opinion is compelled to silence, that opinion may, for aught we can certainly know, be true. To deny this is to assume our own infallibility.

Secondly, though the silenced opinion be an error, it may, and very commonly does, contain a portion of truth; and since the general or prevailing opinion on any subject is rarely or never the whole truth, it is only by the collision of adverse opinions that the remainder of the truth has any chance of being supplied.

Thirdly, even if the received opinion be not only true, but the whole truth; unless it is suffered to be, and actually is, vigorously and earnestly contested, it will, by most of those who receive it,

be held in the manner of a prejudice, with little comprehension or feeling of its rational grounds. And not only this, but, fourthly, the meaning of the doctrine itself will be in danger of being lost or enfeebled, and deprived of its vital effect on the character and conduct: the dogma becoming a mere formal profession, inefficacious for good, but cumbering the ground, and preventing the growth of any real and heartfelt conviction, from reason or personal experience.

Before quitting the subject of freedom of opinion, it is fit to take some notice of those who say that the free expression of all opinions should be permitted, on condition that the manner be temperate, and do not pass the bounds of fair discussion. Much might be said on the impossibility of fixing where these supposed bounds are to be placed; for if the test be offense to those whose opinion is attacked, I think experience testifies that this offense is given whenever the attack is telling and powerful, and that every opponent who pushes them hard, and whom they find it difficult to answer, appears to them, if he shows any strong feeling on the subject, an intemperate opponent. But this, though an important consideration in a practical point of view, merges in a more fundamental objection. Undoubtedly the manner of asserting an opinion, even though it be a true one, may be very objectionable, and may justly incur severe censure. But the principal offenses of the kind are such as it is mostly impossible, unless by accidental self-betrayal, to bring home to conviction. The gravest of them is, to argue sophistically, to suppress facts or arguments, to misstate the elements of the case, or misrepresent the opposite opinion. But all this, even to the most aggravated degree, is so continually done in perfect good faith, by persons who are not considered, and in many other respects may not deserve to be considered, ignorant or incompetent, that it is rarely possible on adequate grounds conscientiously to stamp the misrepresentation as morally culpable; and still less could law presume to interfere with this kind of controversial misconduct. With regard to what is commonly meant by intemperate discussion, namely, invective, sarcasm,

personality, and the like, the denunciation of these weapons would deserve more sympathy if it were ever proposed to interdict them equally to both sides; but it is only desired to restrain the employment of them against the prevailing opinion: against the unprevailing they may not only be used without general disapproval, but will be likely to obtain for him who uses them the praise of honest zeal and righteous indignation. Yet whatever mischief arises from their use, is greatest when they are employed against the comparatively defenseless; and whatever unfair advantage can be derived by any opinion from this mode of asserting it, accrues almost exclusively to received opinions. The worst offense of this kind which can be committed by a polemic, is to stigmatize those who hold the contrary opinion as bad and immoral men. To calumny of this sort, those who hold any unpopular opinion are peculiarly exposed, because they are in general few and uninfluential, and nobody but themselves feels much interest in seeing justice done them; but this weapon is, from the nature of the case, denied to those who attack a prevailing opinion: they can neither use it with safety to themselves, nor, if they could, would it do anything but recoil on their own cause. In general, opinions contrary to those commonly received can only obtain a hearing by studied moderation of language, and the most cautious avoidance of unnecessary offense, from which they hardly ever deviate even in a slight degree without losing ground: while unmeasured vituperation employed on the side of the prevailing opinion, really does deter people from professing contrary opinions, and from listening to those who profess them. For the interest, therefore, of truth and justice, it is far more important to restrain this employment of vituperative language than the other; and, for example, if it were necessary to choose, there would be much more need to discourage offensive attacks on infidelity than on religion. It is, however, obvious that law and authority have no business with restraining either, while opinion ought, in every instance, to determine its verdict by the circumstances of the individual case; condemning every one, on whichever side of the argument he

places himself, in whose mode of advocacy either want of candor, or malignity, bigotry, or intolerance of feeling manifest themselves; but not inferring these vices from the side which a person takes, though it be the contrary side of the question to our own: and giving merited honor to every one, whatever opinion he may hold, who has calmness to see and honesty to state what his opponents and their opinions really are, exaggerating nothing to their discredit, keeping nothing back which tells, or can be supposed to tell, in their favor. This is the real morality of public discussion; and if often violated, I am happy to think that there are many controversialists who to a great extent observe it, and a still greater number who conscientiously strive towards it.

VI

OF THE POSSIBLE UTILITY OF ERROR

JOHN MORLEY

[Viscount Morley (1838–) was in the early years of his public life editor of the *Fortnightly Review*, resigning to enter Parliament in 1883. As a politician he was a strong supporter of Gladstone's policies, and a member of his "Home Rule Cabinet." In the domain of literary study, which has been for him a serious occupation throughout his long parliamentary career, he has shown a penetrating acquaintance with the political and intellectual movements of the eighteenth century in studies of Burke, Rousseau, Voltaire, and Diderot. His interest in the history of English political reforms is seen in his life of Cobden and in his monumental biography of Gladstone.

Of the Possible Utility of Error constitutes the second chapter of the author's work *On Compromise*, published in 1874, a cogent and timely discussion, in a period of great spiritual and political uncertainty, of one of the dominant principles of social organization. This chapter is an assertion of the moral weakness, and even the futility in practice, of the plea of expediency which holds it possible to maintain a code of moral principles varied to suit different grades of intelligence and education. The original importance of this chapter may have lessened since the period when the growth of scientific skepticism seemed to churchmen to threaten the moral restraints inherent in religious faith; but even with our modern recognition of the positive influence of scientific truth upon moral point of view, the essay serves as a useful criticism of an attitude of mind that has by no means disappeared.]

Das Wahre fördert; aus dem Irrthum entwickelt sich nichts, er verwickelt uns nur.[1] — GOETHE.

AT the outset of an inquiry how far existing facts ought to be allowed to overrule ideas and principles that are at variance with them, a preliminary question lies in our way, about which it may be well to say something. This is the question of a dual doc-

[1] The truth helps us; nothing comes of error: it simply entangles us. — *Editors.*

trine. In plainer words, the question whether it is expedient that the more enlightened classes in a community should upon system not only possess their light in silence, but whether they should openly encourage a doctrine for the less enlightened classes which they do not believe to be true for themselves, while they regard it as indispensably useful in the case of less fortunate people. An eminent teacher tells us how after he had once succeeded in presenting the principle of Necessity to his own mind in a shape which seemed to bring with it all the advantages of the principle of Free Will, "he no longer suffered under the burden so heavy to one who aims at being a reformer in opinions, of thinking one doctrine true, and the contrary doctrine morally beneficial." [1] The discrepancy which this writer thought a heavy burden has struck others as the basis of a satisfactory solution.

> Nil dulcius est bene quam munita tenere
> Edita doctrina sapientum templa serena,
> Despicere unde queas alios passimque videre
> Errare atque viam palantes quærere vitæ.[2]

The learned are to hold the true doctrine; the unlearned are to be taught its morally beneficial contrary. "Let the Church," it has been said, "admit two descriptions of believers, those who are for the letter, and those who hold by the spirit. At a certain point in rational culture, belief in the supernatural becomes for many an impossibility; do not force such persons to wear a cowl of lead. Do not you meddle with what we teach or write, and then we will not dispute the common people with you; do not contest our place in the school and the academy, and then we will surrender to your hands the country school." [3] This is only a very courageous and definite way of saying what a great many less accomplished persons than M. Renan have silently in their

[1] Mill's *Autobiography*, p. 170.

[2] Nothing is sweeter than to dwell in the temples secured and established by the calm teachings of the wise, whence you may look down upon others wandering hither and thither and straggling about in search of the path of life. — *Editors.*

[3] M. Renan's *Réforme Intellectuelle et Morale de la France*, p. 98.

hearts, and in England quite as extensively as in France. They do not believe in hell, for instance, but they think hell a useful fiction for the lower classes. They would deeply regret any change in the spirit or the machinery of public instruction which would release the lower classes from so wholesome an error. And as with hell, so with other articles of the supernatural system; the existence of a Being who will distribute rewards and penalties in a future state, the permanent sentience of each human personality, the vigilant supervision of our conduct, as well as our inmost thoughts and desires, by the heavenly powers; and so forth.

Let us discuss this matter impersonally, without reference to our own opinions and without reference to the evidence for or against their truth. I am not speaking now of those who hold all these ideas to be certainly true, or highly probable, and who at the same time incidentally insist on the great usefulness of such ideas in confirming morality and producing virtuous types of character. With such persons, of course, there is no question of a dual doctrine. They entertain certain convictions themselves and naturally desire to have their influence extended over others. The proposition which we have to consider is of another kind. It expresses the notions of those who — to take the most important kind of illustration — think untrue the popular ideas of supernatural interference in our obscure human affairs; who think untrue the notion of the prolongation of our existence after death to fulfill the purpose of the supernatural powers; or at least who think them so extremely improbable that no reasonable man or woman, once awakened to a conviction of this improbability, would thenceforth be capable of receiving effective check or guidance from beliefs, that would have sunk slowly down to the level of doubtful guesses. We have now to deal with those who, while taking this view of certain doctrines, still declare them to be indispensable for restraining from antisocial conduct all who are not acute or instructed enough to see through them. In other words, they think error useful, and that it may be the best thing for society that masses of men should cheat and de-

ceive themselves in their most fervent aspirations and their deepest assurances. This is the furthest extreme to which the empire of existing facts over principles can well be imagined to go. It lies at the root of every discussion upon the limits which separate lawful compromise or accommodation from palpable hypocrisy.

It will probably be said that according to the theory of the school of which M. Renan is the most eloquent representative, the common people are not really cheating themselves or being cheated. Indeed M. Renan himself has expatiated on the charm of seeing figures of the ideal in the cottages of the poor, images representing no reality, and so forth. "What a delight," he cries, "for the man who is borne down by six days of toil to come on the seventh to rest upon his knees, to contemplate the tall columns, a vault, arches, an altar; to listen to the chanting, to hear moral and consoling words!" [1] The dogmas which criticism attacks are not for these poor people "the object of an explicit affirmation," and therefore there is no harm in them; "it is the privilege of pure sentiment to be invulnerable, and to play with poison without being hurt by it." In other words, the dogmas are false, but the liturgy, as a performance stirring the senses of awe, reverence, susceptibility to beauty of various kinds, appeals to and satisfies a sentiment that is both true and indispensable in the human mind. More than this, in the two or three supreme moments of life to which men look forward and on which they look back, — at birth, at the passing of the threshold into fullness of life, at marriage, at death, — the Church is present to invest the hour with a certain solemn and dignified charm. That is the way in which the instructed are to look at the services of a Church, after they have themselves ceased to believe its faith, as a true account of various matters which it professes to account for truly.

It will be perceived that this is not exactly the ground of those who think a number of what they confess to be untruths, wholesome for the common people for reasons of police, and who would

[1] *Études d'Histoire Religieuse*, Preface, p. xvi.

maintain churches on the same principle on which they maintain the county constabulary. It is a psychological, not a political ground. It is on the whole a more true, as well as a far more exalted, position. The human soul, they say, has these lovely and elevating aspirations; not to satisfy them is to leave man a dwarfed creature. Why quarrel with a system that leaves you to satisfy them in the true way, and does much to satisfy them in a false but not very harmful way among those who unfortunately have to sit in the darkness of the outer court?

This is not a proper occasion for saying anything about the adequateness of the Catholic, or any other special manner of fostering and solacing the religious impulses of men. We have to assume that the instructed class believe the Catholic dogmas to be untrue, and yet wish the uninstructed to be handed over to a system that reposes on the theory that these dogmas are superlatively true. What then is to be said of the tenableness of such a position? To the plain man it looks like a deliberate connivance at a plan for the propagation of error — assuming, as I say, for the moment, that these articles of belief are erroneous and contrary to fact and evidence. Ah, but, we are told, the people make no explicit affirmation of dogma; that does nothing for them; they are indifferent to it. A great variety of things might be said to this statement. We might ask, for instance, whether the people ever made an explicit affirmation of dogma in the past, or whether it was always the hazy indifferent matter which it is supposed to be now. If so, whether we shall not have to recast our most fundamental notions of the way in which Christian civilization has been evolved. If not, and if people did once explicitly affirm dogma, when exactly was it that they ceased to do so?

The answers to these questions would all go to show that at the time when religion was the great controlling and organizing force in conduct, the prime elemental dogmas were accepted with the most vivid conviction of reality. I do not pretend that the common people followed all the inferences which the intellectual subtlety of the master spirits of theology drew so industriously

from the simple premises of scripture and tradition. But assuredly dogma was at the foundation of the whole structure. When did it cease to be so? How was the structure supported, after you had altered this condition of things?

Apart from this historic issue, the main question one would like to put to the upholder of duality of religion on this plea, is the simple one, whether the power of the ceremonial which charms him so much is not actually at this moment drawn wholly from dogma and the tradition of dogma; whether its truth is not explicitly affirmed to the unlettered man, and whether the inseparable connection between the dogma and the ceremonial is not constantly impressed upon him by the spiritual teachers to whom the dual system hands him and his order over for all time? If any one of these philosophic critics will take the trouble to listen to a few courses of sermons at the present day, and the remark applies not less to Protestant than to Catholic churches, he will find that instead of that "*parole morale et consolante*"[1] which is so soothing to think of, the pulpit is now the home of fervid controversy and often exacerbated declamation in favor of ancient dogma against modern science. We do not say whether this is or is not the wisest line for the clergy to follow. We only press the fact against those who wish us to believe that dogma counts for nothing in the popular faith, and that therefore we need not be uneasy as to its effects.

Next, one would say to those who think that all will go well if you divide the community into two classes, one privileged to use its own mind, the other privileged to have its mind used by a priesthood, that they overlook the momentous circumstance of these professional upholders of dogmatic systems being also possessed of a vast social influence in questions that naturally belong to another sphere. There is hardly a single great controversy in modern politics where the statesman does not find himself in immediate contact with the real or supposed interests, and with the active or passive sentiment, of one of these religious systems. Therefore if the instructed or intellectually privileged class cheer-

[1] Moral and comforting word. — *Editors.*

fully leave the field open to men who, *ex hypothesi*,[1] are presumed to be less instructed, narrower, more impenetrable by reason, and the partisans of the letter against the spirit, then this result follows. They are deliberately strengthening the hands of the persons least fitted by judgment, experience, and temper for using such power rightly. And they are strengthening them not merely in dealing with religious matters, but, what is of more importance, in dealing with an endless variety of the gravest social and political matters. It is impossible to map out the exact dimensions of the field in which a man shall exercise his influence, and to which he is to be rigorously confined. Give men influence in one matter, especially if that be such a matter as religious belief and ceremonial, and it is simply impossible that this influence shall not extend with more or less effect over as much of the whole sphere of conduct as they may choose to claim. This is no discredit to them; on the contrary it is to their honor. So, in short, in surrendering the common people without dispute or effort to organized priesthoods for religious purposes, you would be inevitably including a vast number of other purposes in the selfsame destination. This does not in the least prejudice practical ways of dealing with certain existing circumstances, such as the propriety or justice of allowing a Catholic people to have a Catholic university. It is only an argument against erecting into a complete and definite formula the division of a society into two great castes, the one with a religion of the spirit, the other with a creed of the letter.

Again, supposing that the enlightened caste were to consent to abandon the common people to what are assumed to be lower and narrower forms of truth, — which is after all little more than a fine phrase for forms of falsehood, — what can be more futile than to suppose that such a compromise will be listened to for a single moment by a caste whose first principle is that they are the possessors and ministers, not of an inferior or superior form of truth, but of the very truth itself, absolute, final, complete, divinely sent, infallibly interpreted? The disciples of the rela-

[1] From our assumption. — *Editors.*

tive may afford to compromise. The disciples of the absolute, never.

We shall see other objections, as we go on, to this state of things, in which a minority holds true opinions and abandons the majority to false ones. At the bottom of the advocacy of a dual doctrine slumbers the idea that there is no harm in men being mistaken, or at least only so little harm as is more than compensated for by the marked tranquillity in which their mistake may wrap them. This is not an idea merely that intellectual error is a pathological necessity of the mind, no more to be escaped than the pathological necessities which afflict and finally dissolve the body. That is historically true. It is an idea that error somehow in certain stages, where there is enough of it, actually does good, like vaccination. Well, the thesis of the present chapter is that erroneous opinion of belief, in itself and as such, can never be useful. This may seem a truism which everybody is willing to accept without demur. But it is one of those truisms which persons habitually forget and repudiate in practice, just because they have never made it real to themselves by considering and answering the objections that may be brought against it. We see this repudiation before our eyes every day. Thus, for instance, parents theoretically take it for granted that error cannot be useful, while they are teaching or allowing others to teach their children what they, the parents, believe to be untrue. Thus husbands who think the common theology baseless and unmeaning, are found to prefer that their wives shall not question this theology nor neglect its rites. These are only two out of a hundred examples of the daily admission that error may be very useful to other people. I need hardly say that to deny this, as the commonplace to which this chapter is devoted denies it, is a different thing from denying the expediency of letting errors alone at a given time. That is another question, to be discussed afterwards. You may have a thoroughly vicious and dangerous enemy, and yet it may be expedient to choose your own hour and occasion for attacking him. "The passage from error to truth," in the words of Condorcet, "may be accompanied by certain evils.

Every great change necessarily brings some of these in its train; and though they may be always far below the evil you are for destroying, yet it ought to do what is possible to diminish them. It is not enough to do good; one must do it in a good way. No doubt we should destroy all errors, but as it is impossible to destroy them all in an instant, we should imitate a prudent architect who, when obliged to destroy a building, and knowing how its parts are united together, sets about its demolition in such a way as to prevent its fall from being dangerous."

Those, let us note by the way, who are accustomed to think the moral tone of the eighteenth century low and gross compared with that of the nineteenth, may usefully contrast these just and prudent words of caution in extirpating error, with M. Renan's invitation to men whom he considers wrong in their interpretation of religion, to plant their error as widely and deeply as they can; and who are moreover themselves supposed to be demoralized, or else they would not be likely to acquiesce in a previous surrender of the universities to men whom they think in mortal error. Apart, however, from M. Renan, Condorcet's words merely assert the duty of setting to work to help on the change from false to true opinions with prudence, and this every sensible man admits. Our position is that in estimating the situation, in counting up and balancing the expediencies of an attack upon error at this or that point, nothing is to be set to the credit of error as such, nor is there anything in its own operations or effects to entitle it to a moment's respite. Every one would admit this at once in the case of physical truths, though there are those who say that some of the time spent in the investigation of physical truths might be more advantageously devoted to social problems. But in the case of moral and religious truths or errors, people, if they admit that nothing is to be set to the credit of error as such, still constantly have a subtle and practically mischievous confusion in their minds between the possible usefulness of error, and the possible expediency of leaving it temporarily undisturbed. What happens in consequence of such a confusion is this. Men leave error undisturbed, because they

accept in a loose way the proposition that a belief may be "morally useful without being intellectually sustainable." They disguise their own dissent from popular opinions, because they regard such opinions as useful to other people. We are not now discussing the case of those who embrace a creed for themselves, on the ground that, though they cannot demonstrate its truth to the understanding, yet they find it pregnant with moralizing and elevating characteristics. We are thinking of a very different attitude — that, namely, of persons who believe a creed to be not more morally useful than it is intellectually sustainable, so far as they themselves are concerned. To them it is pure and uncompensated error. Yet from a vague and general idea that what is useless error to them may be useful to others, they insist on doing their best to perpetuate the system which spreads and consecrates the error. And how do they settle the question? They reckon up the advantages, and forget the drawbacks. They detect and dwell on one or two elements of utility in the false belief or the worn-out institution, and leave out of all account the elements that make in the other direction.

Considering how much influence this vague persuasion has in encouraging a well-meaning hypocrisy in individuals, and a profound stagnation in societies, it may be well to examine the matter somewhat generally. Let us try to measure the force of some of the most usual pleas for error.

I. A false opinion, it may be said, is frequently found to have clustering around it a multitude of excellent associations, which do far more good than the false opinion that supports them does harm. In the Middle Ages, for instance, there was a belief that a holy man had the gift of routing demons, of healing the sick, and of working divers other miracles. Supposing that this belief was untrue, supposing that it was an error to attribute the sudden death of an incredible multitude of troublesome flies in a church to the fact of Saint Bernard having excommunicated them, what then? The mistaken opinion was still associated with a deep reverence for virtue and sanctity, and this was more valuable

than the error of the explanation of the death of the flies was noxious or degrading.

The answer to this seems to be as follows. First, in making false notions the proofs or close associates of true ones, you are exposing the latter to the ruin which awaits the former. For example, if you have in the minds of children or servants associated honesty, industry, truthfulness, with the fear of hell-fire, then supposing this fear to become extinct in their minds, — which, being unfounded in truth, it is in constant risk of doing, — the virtues associated with it are likely to be weakened exactly in proportion as that association was strong.

Second, for all good habits in thought or conduct there are good and real reasons in the nature of things. To leave such habits attached to false opinions is to lessen the weight of these natural or spontaneous reasons, and so to do more harm in the long run than effacement of them seems for a time to do good. Most excellencies in human character have a spontaneous root in our nature. Moreover if they had not, and where they have not, there is always a valid and real external defense for them. The unreal defense must be weaker than the real one, and the substitution of a weak for a strong defense, where both are to be had, is not useful, but the very opposite.

II. It is true, the objector would probably continue, that there is a rational defense for all excellencies of conduct, as there is for all that is worthy and fitting in institutions. But the force of a rational defense lies in the rationality of the man to whom it is proffered. The arguments which persuade one trained in scientific habits of thought, only touch persons of the same kind. Character is not all pure reason. That fitness of things which you pronounce to be the foundation of good habits, may be borne in upon men, and may speak to them, through other channels than the syllogism. You assume a community of highly trained wranglers and proficient sophisters. The plain fact is that, for the mass of men, use and wont, rude or gracious symbols, blind custom, prejudices, superstitions, — however erroneous in themselves, however inadequate to the conveyance of the best

truth, — are the only safe guardians of the common virtues. In this sense, then, error may have its usefulness.

A hundred years ago this apology for error was met by those high-minded and interesting men, the French believers in human perfectibility, with their characteristic dogma, — of which Rousseau was the ardent expounder, — that man is born with a clear and unsophisticated spirit, perfectly able to discern all the simple truths necessary for common conduct by its own unaided light. His motives are all pure and unselfish and his intelligence is unclouded, until priests and tyrants mutilate the one and corrupt the other. We who have the benefit of the historic method, and have to take into account the medium that surrounds a human creature the moment it comes into the world, to say nothing of all the inheritance from the past which it brings within it into the world at the same moment, cannot take up this ground. We cannot maintain that everybody is born with light enough to see the rational defenses of things for himself, without the education of institutions. What we do maintain is — and this is the answer to the plea for error at present under consideration — that whatever impairs the brightness of such light as a man has, is not useful but hurtful. Our reply to those who contend for the usefulness of error on the ground of the comparative impotence of rationality over ordinary minds, is something of this kind. Superstition, blind obedience to custom, and the other substitutes for a right and independent use of the mind, may accidentally and in some few respects impress good ideas upon persons who are too darkened to accept these ideas on their real merits. But then superstition itself is the main cause of this very darkness. To hold error is in so far to foster erroneous ways of thinking on all subjects; is to make the intelligence less and less ready to receive truth in all matters whatever. Men are made incapable of perceiving the rational defenses, and of feeling rational motives, for good habits, — so far as they are thus incapable, — by the very errors which we are asked silently to countenance as useful substitutes for right reason. "Erroneous motives," as Condorcet has expressed this matter, "have an additional drawback at-

tached to them, the habit which they strengthen of reasoning ill. The more important the subject on which you reason ill, and the more you busy yourself about it, by so much the more dangerous do the influences of such a habit become. It is especially on subjects analogous to that on which you reason wrongly, or which you connect with it by habit, that such a defect extends most powerfully and most rapidly. Hence it is extremely hard for the man who believes himself obliged to conform in his conduct to what he considers truths useful to men, but who attributes the obligation to erroneous motives, to reason very correctly on the truths themselves; the more attention he pays to such motives, and the more importance he comes to attach to them, the more likely he will be to go wrong."[1] So, in short, superstition does an immense harm by enfeebling rational ways of thinking; it does a little good by accidentally indorsing rational conclusions in one or two matters. And yet, though the evil which it is said to repair is a trifle beside the evil which it is admitted to inflict, the balance of expediencies is after all declared to be such as to warrant us in calling errors useful!

III. A third objection now presents itself to me, which I wish to state as strongly as possible. "Even if a false opinion cannot in itself be more useful than a true one, whatever good habits may seem to be connected with it, yet," it may be contended, "relatively to the general mental attitude of a set of men, to their other notions and maxims, the false opinion may entail less harm than would be wrought by its mere demolition. There are false opinions so intimately bound up with the whole way of thinking and feeling, that to introduce one or two detached true opinions in their stead, would, even if it were possible, only serve to break up that coherency of character and conduct which it is one of the chief objects of moralists and the great art of living to produce. For a true opinion does not necessarily bring in its train all the other true opinions that are logically connected with it. On the contrary, it is only too notorious a fact in the history of belief, that not merely individuals but whole societies are capable

[1] *Œuvres*, vol. v, p. 354.

of holding at one and the same time contradictory opinions and mutually destructive principles. On the other hand, neither does a false opinion involve practically all the evil consequences deducible from it. For the results of human inconsistency are not all unhappy, and if we do not always act up to virtuous principle, no more do we always work out to its remotest inference every vicious principle. Not insincerity, but inconsistency, has constantly turned the adherents of persecuting precepts into friends of tolerant practice."

"It is a comparatively small thing to persuade a superstitious person to abandon this or that article of his superstition. You have no security that the rejection of the one article which you have displaced will lead to the rejection of any other, and it is quite possible that it may lead to all the more fervid an adhesion to what remains behind. Error, therefore, in view of such considerations may surely be allowed to have at least a provisional utility."

Now undoubtedly the repudiation of error is not at all the same thing as embracing truth. People are often able to see the force of arguments that destroy a given opinion, without being able to see the force of arguments for the positive opinion that ought to replace it. They can only be quite sure of seeing both, when they have acquired not merely a conviction that one notion is false and another true, but have furthermore exchanged a generally erroneous way of thinking for a generally correct way. Hence the truly important object with every one who holds opinions which he deems it of the highest moment that others should accept, must obviously be to reach people's general ways of thinking; to stir their love of truth; to penetrate them with a sense of the difference in the quality of evidence; to make them willing to listen to criticism and new opinion; and perhaps above all to teach them to take ungrudging and daily trouble to clear up in their minds the exact sense of the terms they use.

If this be so, a false opinion, like an erroneous motive, can hardly have even a provisional usefulness. For how can you attack an erroneous way of thinking except in detail, that is to say,

through the sides of this or that single wrong opinion? Each of these wrong opinions is an illustration and type, as it is a standing support and abettor, of some kind of wrong reasoning, though they are not all on the same scale nor all of them equally instructive. It is precisely by this method of gradual displacement of error step by step, that the few stages of progress which the race has yet traversed, have been actually achieved. Even if the place of the erroneous idea is not immediately taken by the corresponding true one, or by the idea which is at least one or two degrees nearer to the true one, still the removal of error in this purely negative way amounts to a positive gain. Why? For the excellent reason that it is the removal of a bad element which otherwise tends to propagate itself, or even if it fails to do that, tends at the best to make the surrounding mass of error more inveterate. All error is what physiologists term fissiparous, and in exterminating one false opinion you may be hindering the growth of an uncounted brood of false opinions.

Then as to the maintenance of that coherency, interdependence, and systematization of opinions and motives, which is said to make character organic, and is therefore so highly prized by some schools of thought. No doubt the loosening of this or that part of the fabric of heterogeneous origin, which constitutes the character of a man or woman, tends to loosen the whole. But do not let us feed ourselves upon phrases. This organic coherency, what does it come to? It signifies in a general way, to describe it briefly, a harmony between the intellectual, the moral, and the practical parts of human nature; an undisturbed coöperation between reason, affection, and will; the reason prescribing nothing against which the affections revolt, and proscribing nothing which they crave; and the will obeying the joint impulses of these two directing forces, without liability to capricious or extravagant disturbance of their direction. Well, if the reason were perfect in information and method, and the affections faultless in their impulse, then organic unity of character would be the final consummation of all human improvement, and it would be criminal, even if it were possible, to undermine a structure of such

priceless value. But short of this there can be no value in coherency and harmonious consistency as such. So long as error is an element in it, then for so long the whole product is vitiated. Undeniably and most fortunately, social virtues are found side by side with speculative mistakes and the gravest intellectual imperfections. We may apply to humanity the idea which, as Hebrew students tell us, is imputed in the Talmud to the Supreme Being. *God prays*, the Talmud says, and his prayer is this: "Be it my will that my mercy overpower my justice." And so with men, with or without their will, their mercifulness overpowers their logic. And not their mercifulness only, but all their good impulses overpower their logic. To repeat the words which I have put into the objector's mouth, we do not always work out every vicious principle to its remotest inference. What, however, is this but to say that in such cases character is saved, not by its coherency, but by the opposite; to say not that error is useful, but what is a very different thing, that its mischievousness is sometimes capable of being averted or minimized?

The apologist may retort that he did not mean logical coherency, but a kind of practical everyday coherency, which may be open to a thousand abstract objections, yet which still secures both to the individual and to society a number of advantages that might be endangered by any disturbance of opinion or motive. No doubt, and the method and season of chasing erroneous opinions and motives out of the mind must always be a matter of much careful and farseeing consideration. Only, in the course of such consideration, let us not admit the notion in any form that error can have even provisional utility. For it is not the error which confers the advantages that we desire to preserve, but some true opinion or just motive or high or honest sentiment, which exists and thrives and operates in spite of the error and in face of it, springing from man's spontaneous and unformulated recognition of the real relations of things. This recognition is very faint in the beginnings of society. It grows clearer and firmer with each step forward. And in a tolerably civilized age

it has become a force on which you can fairly lean with a considerable degree of assurance.

And this leads to the central point of the answer to the argument from coherency of conduct. In measuring utility you have to take into account not merely the service rendered to the objects of the present hour, but the contribution to growth, progress and the future. From this point of view most of the talk about unity of character is not much more than a glorifying of stagnation. It leaves out of sight the conditions necessary for the continuance of the unending task of human improvement. Now whatever ease may be given to an individual or a generation by social or religious error, such error at any rate can conduce nothing to further advancement. That, at least, is not one of its possible utilities.

This is also one of the answers to the following plea. "Though the knowledge of every positive truth is an useful acquisition, this doctrine cannot without reservation be applied to negative truth. When the only truth ascertainable is that nothing can be known, we do not, by this knowledge, gain any new fact by which to guide ourselves."[1] But the negative truth that nothing can be known is in fact a truth that guides us. It leads us away from sterile and irreclaimable tracts of thought and emotion and so inevitably compels the energies which would otherwise have been wasted, to feel after a more profitable direction. By leaving the old guide-marks undisturbed, you may give ease to an existing generation, but the present ease is purchased at the cost of future growth. To have been deprived of the faith of the old dispensation is the first condition of strenuous endeavor after the new.

No doubt history abounds with cases in which a false opinion, on moral or religious subjects, or an erroneous motive in conduct, has seemed to be a stepping-stone to truth. But this is in no sense a demonstration of the utility of error. For in all such cases the erroneous opinion or motive was far from being wholly

[1] Mill's *Three Essays on Religion*, p. 73. I have offered some criticisms on the whole passage in *Critical Miscellanies, Second Series*, pp. 300–304.

erroneous, or wholly without elements of truth and reality. If it helped to quicken the speed or mend the direction of progress, that must have been by virtue of some such elements within it. All that was error in it was pure waste, or worse than waste. It is true that the religious sentiment has clothed itself in a great number of unworthy, inadequate, depressing, and otherwise misleading shapes, dogmatic and liturgic. Yet on the whole the religious sentiment has conferred enormous benefits on civilization. This is no proof of the utility of the mistaken direction which these dogmatic or liturgic shapes imposed upon it. On the contrary, the effect of the false dogmas and enervating liturgies is so much that has to be deducted from the advantages conferred by a sentiment in itself valuable and of priceless capability.

Yes, it will be urged, but from the historic conditions of the time, truth could only be conveyed in erroneous forms, and motives of permanent price for humanity could only be secured in these mistaken expressions. Here I would again press the point of this necessity for erroneous forms and mistaken expressions being, in a great many of the most important instances, itself derivative, one among other ill consequences of previous moral and religious error. "It was gravely said," Bacon tells us, "by some of the prelates in the Council of Trent, where the doctrines of the Schoolmen have great sway, that the Schoolmen were like Astronomers, which did faigne Eccentricks and Epicycles and Engines of Orbs to save the Phenomena; though they knew there were no such Things; and in like manner that the Schoolmen had framed a number of subtile and intricate Axioms and Theorems, to save the practice of the Church." This is true of much else besides scholastic axioms and theorems. Subordinate error was made necessary and invented, by reason of some preëxistent main stock of error, and to save the practice of the Church. Thus we are often referred to the consolation which this or that doctrine has brought to the human spirit. But what if the same system had produced the terror which made absence of consolation intolerable? How much of the neces-

sity for expressing the enlarged humanity of the Church in the doctrine of purgatory arose from the existence of the older unsoftened doctrine of eternal hell?

Again, how much of this alleged necessity of error, as alloy for the too pure metal of sterling truth, is to be explained by the interest which powerful castes or corporations have had in preserving the erroneous forms, even when they could not resist, or did not wish to resist, their impregnation by newer and better doctrine? This interest was not deliberately sinister or malignant. It may be more correctly as well as more charitably explained by that infirmity of human nature which makes us very ready to believe what it is on other grounds convenient to us to believe. Nobody attributes to pure malevolence the heartiness with which the great corporation of lawyers, for example, resist the removal of superfluous and obstructive forms in their practice; they have come to look on such forms as indispensable safeguards. Hence powerful teachers and preachers of all kinds have been spontaneously inclined to suppose a necessity, which had no real existence, of preserving as much as was possible of what we know to be error, even while introducing wholesome modification of it. This is the honest, though mischievous, conservatism of the human mind. We have no right to condemn our foregoers; far less to lavish on them the evil names of impostor, charlatan, and brigand, which the zealous unhistoric school of the last century used so profusely. But we have a right to say of them, as we say of those who imitate their policy now, that their conservatism is no additional proof of the utility of error. Least of all is it any justification for those who wish to have impressed upon the people a complete system of religious opinion which men of culture have avowedly put away. And, moreover, the very priests must, I should think, be supposed to have put it away also. Else they would hardly be invited deliberately to abdicate their teaching functions in the very seats where teaching is of the weightiest and most far-spreading influence.

Meanwhile our point is that the reforms in opinion which have been effected on the plan of pouring the new wine of truth into

the old bottles of superstition — though not dishonorable to the sincerity of the reformers — are no testimony to even the temporary usefulness of error. Those who think otherwise do not look far enough in front of the event. They forget the evil wrought by the prolonged duration of the error, to which the added particle of truth may have given new vitality. They overlook the ultimate enervation that is so often the price paid for the temporary exaltation.

Nor, finally, can they know the truths which the error thus prolonged has hindered from coming to the birth. A strenuous disputant has recently asserted against me that "the region of the *might have been* lies beyond the limits of sane speculation." [1] It is surely extending optimism too far to insist on carrying it back right through the ages. To me at any rate the history of mankind is a huge *pis-aller*,[2] just as our present society is; a prodigious wasteful experiment, from which a certain number of precious results have been extracted, but which is not now, nor ever has been at any other time, a final measure of all the possibilities of the time. This is not inconsistent with the scientific conception of history; it is not to deny the great law that society has a certain order of progress; but only to urge that within that, the only possible order, there is always room for all kinds and degrees of invention, improvement, and happy or unhappy accident. There is no discoverable law fixing precisely the more or the less of these; nor how much of each of them a community shall meet with, nor exactly when it shall meet with them. We have to distinguish between possibility and necessity. Only certain steps in advance are possible at a given time; but it is not inevitable that these potential advances should all be realized. Does anybody suppose that humanity has had the profit of all the inventive and improving capacity born into the world? That Turgot, for example, was the only man that ever lived who might have done more for society than he was allowed to do, and spared society a cataclysm? No, —

[1] Sir J. F. Stephen's *Liberty, Equality, and Fraternity*, 2d ed., p. 19, *note*.

[2] A condition which must be accepted for want of a better. — *Editors*.

history is a *pis-aller*. It has assuredly not moved without the relation of cause and effect; it is a record of social growth and its conditions; but it is also a record of interruption and misadventure and perturbation. You trace the long chain which has made us what we are in this aspect and that. But where are the dropped links that might have made all the difference? *Ubi sunt eorum tabulæ qui post vota nuncupata perierunt?* [1] Where is the fruit of those multitudinous gifts which came into the world in untimely seasons? We accept the past for the same reason that we accept the laws of the solar system, though, as Comte says, "we can easily conceive them improved in certain respects." The past, like the solar system, is beyond reach of modification at our hands, and we cannot help it. But it is surely the mere midsummer madness of philosophic complacency to think that we have come by the shortest and easiest of all imaginable routes to our present point in the march; to suppose that we have wasted nothing, lost nothing, cruelly destroyed nothing, on the road. What we have lost is all in the region of the "might have been," and we are justified in taking this into account, and thinking much of it, and in trying to find causes for the loss. One of them has been want of liberty for the human intelligence; and another, to return to our proper subject, has been the prolonged existence of superstition, of false opinions, and of attachment to gross symbols, beyond the time when they might have been successfully attacked, and would have fallen into decay but for the mistaken political notion of their utility. In making a just estimate of this utility, if we see reason to believe that these false opinions, narrow superstitions, gross symbols, have been an impediment to the free exercise of the intelligence and a worthier culture of the emotions, then we are justified in placing the unknown loss as a real and most weighty item in the account against them.

In short, then, the utmost that can be said on behalf of errors in opinion and motive is that they are inevitable elements in

[1] Where are the votive tablets of those who have perished after proclaiming their vows? — *Editors*.

human growth. But the inevitable does not coincide with the useful. Pain can be avoided by none of the sons of men, yet the horrible and uncompensated subtraction which it makes from the value and usefulness of human life, is one of the most formidable obstacles to the smoother progress of the world. And as with pain, so with error. The moral of our contention has reference to the temper in which practically we ought to regard false doctrine and ill-directed motive. It goes to show that if we have satisfied ourselves on good grounds that the doctrine is false, or the motive ill directed, then the only question that we need ask ourselves turns solely upon the possibility of breaking it up and dispersing it, by methods compatible with the doctrine of liberty. Any embarrassment in dealing with it, due to a semi-latent notion that it may be useful to some one else, is a weakness that hinders social progress.

VII

THE SCIENTIFIC BASES OF OPTIMISM

William Hurrel Mallock

[William Hurrel Mallock (1849–) is a well-known English writer of fiction and of poetry, and an essayist on philosophical, economic, and sociological topics. Probably his greatest distinction as a writer lies in this last field, in which he stands as an upholder of conservatism in dealing with the social problems of to-day.

The Scientific Bases of Optimism was published originally in the *Fortnightly Review* for 1889, and was reprinted in 1895 in the author's *Studies of Contemporary Superstition*. The title possibly fails to convey the actual import of the essay, as the writer's view as expressed here is that there are probably no scientific bases for optimism. Mr. Mallock means by this that the evidence of history fails to assure us that the progress of the human race is one of continuous betterment, and that an optimism which seeks in science justification for a belief in consistent human progress is mistaken and unwarranted. Religion, he states, has been at least an appreciable encouragement to human conduct and effort which have as their aims the enrichment of life; but science has as yet produced no equivalent for the moral force of a religious faith. The increased knowledge of life which we have derived from science is, he thinks, as an ethical stimulus almost negligible. In this attitude the author represents the philosophical judgment of not merely many of our contemporary essayists, but of a number of novelists and dramatists who have made their writings the vehicles for a concrete philosophy. As a more or less popular analysis of optimism as a philosophical attitude — and this is to be distinguished from optimism as a commendable habit of mind — this essay is probably as effective as recent years have given us.]

In many ways public attention in England has lately been called afresh to the great and universal question of what our modern science, if fatal to miraculous Christianity, will itself put, or allow to be put, in place of it. Only a few months since, in the pages of this Review, a new manifesto was issued by one of our best known Positivists, which purported to describe the exact reli-

gious position taken up by the infant Church of Humanity. Mr. John Morley has republished in ten volumes what is, under one of its aspects, neither more nor less than an anti-Christian creed, imbedded in a series of criticisms. Other eminent writers equally anti-Christian have been again exhibiting their opinions to the gaze of the pitiable millions, who still sit hugging the broken fetters of theology. Indeed, we may say that during the past two years, each of the principal sects into which the Protestantism of science has split itself has appealed to us afresh, through the mouth of some qualified minister; whilst the hold which such questions have on the public mind, whenever they are put in a way which the public can comprehend, has been curiously illustrated by the eagerness of even frivolous people, in devouring a recent novel, which on ordinary grounds would be unreadable, and whose sole interest consisted in its treatment of Christianity.

Stimulated by the example of our scientific instructors, I propose to follow, as faithfully as I am able, in their footsteps. There are certain canons of criticism and there is a certain skeptical temper, which they have applied to Christianity, and which they say has destroyed it. The same canons and temper I now propose to apply to the principal doctrine which they offer to the world as a substitute.

Of course it will be said that thinkers who call themselves scientific offer us doctrines of widely different kinds. No doubt this is true. Amongst men of science as doctrinaires, there are as many sects as there are amongst theological Protestants; nor was it without meaning, as I shall show by and by, that I spoke of their creeds collectively, under the name of Scientific Protestantism. But though, like theological Protestants, they differ amongst themselves, and even quarrel amongst themselves, like theological Protestants also, they have fundamental points of agreement; and it is solely with these last that I now propose to concern myself. Let us take first a hasty glance at their differences; and it will be presently plain enough what the points of agreement are.

Putting aside, then, all minor questions, Scientific Protestantism may be said, with substantial accuracy, to be composed at the present moment of five principal sects, which differ from one another mainly in the following ways. One of them, whilst denying, as they all do, both miracles and a future life, believes in a personal God, not unlike the Father of the Gospels. Indeed, it adopts most of what the Gospels say of Him. It accepts their statements; it only denies their authority. There is a second sect which retains a God also, but a God, as it fancies, of a much sublimer kind. He is far above any relationship so definite as that of a father; indeed, we gather that he would think even personality vulgar. If we ask what he is, we receive a double answer. He is a metaphysical necessity; he is also an object of sentiment; and he is apprehended alternately in a vague sigh and a syllogism. He is, in fact, a God of the very kind that Faust described so finely when engaged in seducing Margaret. Neither of these two sects is greatly admired by a third, which regards the God of the first as a mutilated relic of Christianity, and the God of the second as an idle, maundering fancy. It has, however, an object of adoration of its own, which it declares, like St. Paul, as the reality ignorantly worshiped by the others. Its declaration, however, unlike St. Paul's, is necessarily of extreme brevity, for this Unknown God is nothing else than the Unknowable. It is the philosopher's *substance* of the universe underlying phenomena; and it raises our lives somehow by making us feel our ignorance of it. These three sects we may call Unitarians, Deists, and Pantheists. There is a fourth which considers them all three ridiculous; but the third, with its Unknowable, the most ridiculous of all. This fourth sect has also its God, which is best described by saying that it differs from the Unknowable in being known in one particular way. It is revealed in a general tendency, discoverable in human affairs, which, taking one thousand years with another, is alleged on the whole to make for righteousness or for progress. The individual man is not made in God's image; but the fortunes or the misfortunes of a sufficient number of men are something still

better — they are the manifestations of God himself. Lastly, we have a fifth sect, nearest akin to the fourth, but differing from it and from all the others in one important particular. It rids itself of any idea of God altogether, as a complete superfluity. An object of adoration, like all the others, it has; and, like the fourth, it finds this object in the tendencies of human history. But why, it asks, should we call them the manifestations of God? Why wander off to anything so completely beside the point? They are not the manifestations of God. It is obvious what they are; they are the manifestations of Humanity. We have here, under our noses, in a visible and tangible form, the true object of all these sublime emotions, those hours of comforting contemplation, which men have been offering in vain to the acceptance of all the infinities in rotation. The object which we have scoured the universe and ransacked our fancies to find, has all the while been actually in contact with ourselves, and we ourselves have been actually integral parts of it.

Here, then, classified with sufficient accuracy, are the principal forms of religion, which those who reject Christianity are now offering the world, in the name of science, as substitutes. Now the great fact which I wish to point out is this: however much the four first differ from one another and from the last, yet the main tenets of the last form an integral part of all. The worshipers of Humanity base their worship of it on certain beliefs as to evolution and progress, which give to human events some collective and coherent meaning. Every one of the other sects, let it worship what it will, bases its worship on precisely the same foundation. The Scientific Theists, denying both a future life and a revelation, and yet maintaining that God has moral relations with man, and that a man's personal pleasure is the least thing a man lives for, can explain such a doctrine only by affirming a social progress which enlarges the purposes of the individual and exhibits the purpose of God. The religion of the Unknowable is obviously but the religion of Humanity, with the Unknowable placed under it, like the body of a violoncello, in the hope of producing a deeper moral vibration; and of every form

of scientific theism we may say the same with equal even if not with such obvious truth. I do not suppose that anybody will dispute this; otherwise I should dwell on it longer, so as to place it beyond a doubt. I will take it then for admitted that in all scientific religions, in all our modern religions that deny a future life and a revelation, the religion of Humanity is an essential, is indeed the main, ingredient. Let us now consider with a little more exactness what, as a series of propositions, this religion of Humanity is.

Every religious doctrine has some idea at the bottom of it far simpler than the propositions in which alone it can be stated logically. Let us see what is the idea at the bottom of the religious doctrine of Humanity. It appeals to us most forcibly perhaps under its negative aspect. Under that aspect we may seize it completely, thus. Let us take Shakespeare's lines —

> Life is a tale,
> Told by an idiot full of sound and fury,
> Signifying nothing.

Let us realize fully all that these lines mean. The idea in question is a protest against that meaning.

In this form, however, there is nothing scientific about it. It is merely the protest of an individual based on his own emotions, and any other individual may with equal force contradict it. To make it scientific it must be transferred to a different basis — from the subjective experience of the individual to the objective history of the race. The value to each man of his own personal lot depends entirely on what each man thinks it is. No one else can observe it; therefore no one else can dispute about it. But the lot of the race at large is open to the observation of all. It is obvious to all that this lot is always changing, and the nature of these changes, whether they have any meaning in them or none, is not a matter of opinion, but of facts and inductions from facts. The religious doctrine of Humanity asserts that they have a meaning. It asserts that they follow a certain rational order, and that whether or no they are related to the

purposes of any God, they have a constant and a definite relation to ourselves. It asserts that, taken as a whole, they have been, are, and will be, always working together — though it may be very slowly — to improve the kind of happiness possible for the human being, and to increase the numbers by whom such happiness will be enjoyed.

Here, put in its logical and categorical form, is the primary doctrine common to all our scientific religions. The instant, however, it is thus expressed, another proposition, through a process of logical chemistry, adheres to it and becomes part of its structure. This proposition relates not to the tendencies of the race, but to the constitution of the average individual character. It asserts, and very truly, that a natural element in that character is sympathy; but it asserts more than this. It asserts that sympathy, even as it exists now, is a feeling far stronger and wider than has usually been supposed; that it is capable, even now, when once the idea of progress has been apprehended, of making the fortunes of the race a part of the fortunes of the individual, and inspiring the individual to work for the progress in which he shares; and it asserts that, strong as sympathy is now, it will acquire, as time goes on, a strength incalculably greater.

These two propositions united may be summed up thus. The Human Race as a whole is a progressive and improving organism; and the conscience, on the part of the individual that such is the case, will be the principal cause of its continued progress in the future, and will make the individual a devoted and happy partaker of it.

Here is the religion of Humanity reduced to its simplest elements. I have called it the religion of Humanity because the name is now familiar, and may help to show the reader what it is I am talking about. But having used it thus far, I shall now beg leave to change it, and instead of the religion of Humanity I shall speak of the creed of Optimism. For my present purpose it is a great deal clearer. A religion is a creed touched with emotion; a creed is nothing but a dry series of propositions. My present purpose is simply to examine two dry propositions, and

I will put all questions of emotion as far as possible into the background. I am aware that the word Optimism is sometimes used with a meaning which many devotees of the religion of Humanity would repudiate. George Eliot, for instance, declared she was not an Optimist. Things were not for the best, she said; but they were always tending to get better. She accordingly said that she would sooner describe herself as a Meliorist. Nobody again lays greater or more solemn weight on the doctrine of progress than does Mr. John Morley; and yet nobody would more bitterly ridicule the doctrines of Dr. Pangloss. But in spite of the sober and even somber view which such thinkers take of the human lot, they still believe that it holds some distinct and august meaning, that the tides of affairs, however troubled, do not eddy aimlessly, and do not flow towards the darkness, but keep due on towards the light, however distant. They believe, in short, that the human lot has something in it, which makes it, in the eyes of all who can see clearly, a thing to be acquiesced in not merely with resignation, but devoutness. The soberest adherents of the religion of Humanity admit as much as this; and no violence is done to the meaning, or even to the associations of the word, if all who admit thus much, from the most to the least sanguine, are classed together under the common name of Optimists.

And now having seen what Optimism is, let us before going farther, make ourselves quite clear as to what results on life its exponents claim for it. They do not claim for it, as has been sometimes claimed for Christianity, that it is the foundation of the moral code. Our modern Optimists, without a single exception, hold the foundations of the moral code to be social. According to their theory, all its cardinal precepts have been the results not of belief, but of experience, and simply represent the conditions essential to social union. Belief, in certain important ways, may modify them; but it neither created them nor can substantially change them. Christianity, for instance, has put chastity on a pedestal, but it was not Christianity that made adultery a crime, nor would the completest atheism enable us to

construct a society which could live and thrive without some sexual discipline. This is the view taken by modern science, and we may all accept it, as far as it goes, for true. Since then the propositions which compose the creed of Optimism are not propositions from which the moral code is deduced, what moral result is supposed to spring from an assent to them? The result is supposed to be this — not any new assent to the reasonableness of that code, but a new heart in obeying it. In other words, the end of moral conduct being the welfare of society, our assent to the creed of Optimism makes that welfare incalculably nearer and dearer to us than it would be otherwise, and converts a mere avoidance of such overt acts as would injure it into a willing, a constant, an eager effort to promote it. This is what Optimism, when assented to, and acting on the emotions, claims to do for conduct; and indeed it is no slight thing. It is a thing that makes all the difference between the life of a race of brutes, and the life of a race with something which we have hitherto called divine in it. For those who deny any other life but the present, what Optimism announces is practically the re-creation of the soul, and our redemption from the death of an existence merely selfish and animal. Optimism announces this, and of all scientific creeds it alone pretends to do so; and if its propositions are true, there are plausible grounds for arguing that a genuine religion of the kind described will result from it.

And now we come to the question which I propose to ask — *Are* its propositions true? Or are we certain that they are true? And if we are certain, on what kinds of evidence do we base our certainty? We have already got them into condition to be submitted to this inquiry. We have stripped them, so to speak, for the operation. There they stand, two naked propositions, whose sole claim to our acceptance is that they are scientific truths, that they are genuine inductions from carefully observed facts, that they have been reached legitimately by the daylight of reason, that prejudice and emotion have had nothing to do with the matter; that they stand, in short, on precisely the same footing as any accepted generalization of physics or physiology.

One of them, as we have seen, is a proposition relating to the changes of human history; the other is a proposition relating to the sympathetic capacity of the individual.

I propose to show that the first is not as yet a legitimate generalization at all; that the facts of the case as at present known, not only are insufficient, but point in two opposite ways, that the certainty with which the proposition is held by our scientific instructors is demonstrably due to some source quite other than scientific evidence, and finally, that even if, in any sense, the proposition should be found true, the truth would be found inadequate to the expectations based on it.

This is what I propose to show with regard to the proposition asserting progress. With regard to the proposition that deals with human sympathy, I propose to show that it is less scientific still, that whilst here and there an isolated fact, imperfectly apprehended, may suggest it, the great mass of facts absolutely and hopelessly contradict it, and furthermore, that even granting its truth, its truth would cut both ways, and annihilate the conclusions it supported.

This last proposition we will consider first. Let us repeat it in set terms. It asserts that the sympathetic feelings of the average man are sufficiently strong and comprehensive to make the alleged progress of the human race a source of appreciable and constant satisfaction to himself. And the satisfaction in question is no mere pensive sentiment, no occasional sunbeam gilding an hour of idleness; but it is a feeling so robust and strong that it can not only hold its own amongst our ordinary joys and sorrows, but actually impart its own color to both. It will also, as progress continues, increase in strength and importance.

Now in considering if this is true, let us grant all that can be granted; let us grant, for argument's sake, that progress is an acknowledged reality — that human history, if regarded in a way sufficiently comprehensive, shows us, written across it in gigantic characters, some record of general and still continuing improvement. Are our characters such that the knowledge of this fact

will really cause us any flow of spirits sufficiently vivid to take rank amongst our personal joys, and to buoy us up in personal despondency and sorrow? Or again, are they such that this general improvement of the race will be an object nearer our hearts than our own private prosperity, and will really incite us to sacrifice our strength and our pleasures to its promotion? To these questions there are two answers, which I shall give separately.

The first answer is, that from one point of view they are simply questions of degree. For instance, supposing it were suddenly made known to all of us, that some extraordinary amelioration in the human lot would, owing to certain causes, accomplish itself during the next ten days, the whole race would probably experience a sense of overmastering joy, through which ordinary sorrows and annoyances would hardly make themselves felt. Or again, should it be known that this glorious piece of progress were contingent on every one making some specified effort, we may safely say that for the time very few men would be idle. And again, should it be known that by indulgence in personal passion the results of this progress would be grievously and visibly diminished, for ten days, doubtless, self-restraint would be general. But in proportion as we suppose the rate of the progress to be slower, and the importance to the result of each separate act to be less, our satisfaction in the one and our anxiety about the other would dwindle, till the former would be perceptible only in the hush of all other emotions; and the latter, as affecting action, would cease to be perceptible at all.

To convince ourselves that such is the law which this feeling would follow, we have only to look at the commonest experiences of life; for the sympathy with general progress of which we are alleged to be capable, is not supposed to have anything miraculous about it, but to be simply a particular application of a faculty in daily exercise. Now an ordinary man is delighted if some great good fortune happens to some other who is very near and dear to him — if his son or his daughter or his brother, for instance, marries well and happily; but if the same good fortune happens to some unknown connection, his delight is at best

of a very lukewarm kind; whilst if he hears of a happy marriage in Germany, it is nonsense to pretend that he is really delighted at all. Again, if he reads in the *Times* of an accident to a train in America, he says it is shocking, and goes on with his breakfast; but if a telegram comes to inform him that his son was amongst the passengers, he at once is in torture till he learns if his son is safe. So too with regard to conduct, the consequences to be expected from any given act will influence his choice or his avoidance of it in proportion to their nearness or their remoteness, to their certainty or their uncertainty, to the clearness with which he is able to grasp them, and also to their objective magnitude relative to the amount of effort required from himself in doing the act or in abstaining from it. This is evident in cases where the consequences are consequences to the doer. A reward to be given in ten years time stimulates no one as much as a reward to be given to-morrow; nor does a fit of the gout hovering dimly in the future keep the hand from the bottle like a twinge already threatening. Again, if the ill consequences of an act otherwise pleasant have in them the smallest uncertainty, a numerous class is always ready to risk them; and as the uncertainty becomes greater, this class increases. All intemperance, all gambling, all extravagance, all sports such as cricket and hunting, and the very possibility of a soldier's life as a profession, depend on this fact. Few men would enlist if they knew that they would be shot in a twelvemonth; few men would go hunting if they knew they would come home on a stretcher. And what is true of men's acts regarded as affecting themselves is equally true of them regarded as affecting others. Sympathy follows the same laws as selfishness. Supposing a young man knew that if he did a certain action his mother would instantly hear of it and die of grief in consequence, he would be a young man of very exceptional badness if this knowledge were not a violent check on him. But suppose the act were only one of a series, making his general conduct only a little worse, and suppose that the chance of his mother's hearing of it were slight, and that it would, if she did hear of it, cost her only one extra

sigh, the check so strong in the first case would in this be extremely feeble. Here again is a point more important still. In the case of any act, regarded as affecting others, which involves effort or sacrifice, the motive to perform it depends for its strength or weakness on the proportion between the amount of the sacrifice and the amount of good to be achieved by it. A man may be willing to die to save his wife's honor, but he will hardly be willing to do so to save her new ball dress, even though she herself thinks the latter of most value. A man would deny himself one truffle to keep a hundred men from starving, but he would not himself starve to give a hundred men one truffle. The effort is immense on one side, the result infinitesimal on the other, and sympathy does nothing to alter the unequal balance. Lastly, results to others, as apprehended by sympathy, even when not small themselves, are made small by distance. No man thinks so much of what will happen to his great-grandchildren as he does of what will happen to his children; nor would it be easy to raise money for building a hospital which would not be finished for fifteen hundred years. Sympathy then with other people, or with any cause or any object affecting them, influences our actions in proportion as the people are near to us, or as the objects are large, distinct, or important; whence it follows that to produce a given strength of motive, the more distant an object is the larger and more distinct it must be.

And now let us turn again to the progress of the human race; and supposing it to be a fact, and accepting it as described by its prophets, let us consider how far our sympathies are really likely to be affected by it. Is it quick enough? Is it distinct enough? Is there a reasonable proportion between the efforts demanded from us on its behalf, and the results to be anticipated from these efforts? And how far, in each individual case, are the results certain or doubtful?

Now one of the first things which our scientific Optimists impress on us is, that this progress is extremely slow. Before it has brought the general lot to a condition which in itself is even approximately satisfactory, "immeasurable geologic periods of

time," Mr. Morley tells us, will have to intervene; and Mr. Frederic Harrison, in this Review, a month or two since, warned us not to be in a hurry. He is far more sanguine indeed than Mr. Morley; but even he thinks that we must wait for three thousand years, before the results of Progress begin to be worth talking about. Now, "to a practical man," says Mr. Harrison, "three thousand years is an eternity." I quite agree with him; to a practical man it is; and thus, whether his calculations are accepted, or Mr. Morley's, our own efforts on behalf of the general welfare are divided by a practical eternity from their first appreciable fruits. Now since Mr. Harrison refers us to practical men, let us try to imagine, guided by our common experience, how the knowledge that this kind of progress was a reality would be likely to affect the practical men we know. Let us first think how it would affect their feelings; and then how, through their feelings, it would affect their actions. The two questions are separate, and involve different sets of considerations.

To begin then with the question of mere feeling. If we wish to form some conjecture as to how men are likely to feel about the things of the remote future, we cannot do better than resort to a test which is suggested to us by the Optimists themselves, and consider how men feel about the things of the remote past. Of course, as we may see in the case of a man's own life, the feelings excited by the past differ in kind from those excited by the future; but the intensity of the one, we may say with confidence, is a fair measure of the intensity of the other. If a man who has caused himself suffering by his own acts, forgets that suffering the first moment it is over, he is not likely to trouble himself about the possibility of its repetition. And the same thing will hold good as to our feeling for past and future generations. Events that are going to happen three thousand years hence will hardly be more to us than events which happened three thousand years ago. Now what man in any practical sense cares anything about what happened three thousand years ago? To repeople the cities and temples of the past — Memphis, and Thebes, and

Babylon — to see at the call of the imagination the earth give up her dead, and buried generations come and go before us, is no doubt an occupation that many of us find fascinating. But the pleasure of watching these ἀμενηνὰ κάρηνα[1] has nothing akin to any personal interest in them. Neither, again, has the interest taken in them by the historian. Were we to learn to-day for the first time that all the plagues of Egypt had been repeated ten times over, or that a million slaves had been tortured by Pharaoh Necho, nobody's spirits would be in the least damped by the intelligence. The strongest feelings producible by the longest contemplation of the greatest triumphs and the greatest misfortunes of antiquity are mere phantoms, mere wraiths, mere reflections of the reflections of shadows, when compared with the annoyance producible by a smoky chimney. Supposing we were to discover that three thousand years ago there was a perfectly happy and a perfectly civilized society, the conditions of which were still perfectly plain to us, the discovery no doubt would be intensely interesting if it afforded us any model that we could ourselves imitate. But our interest would be centered in the thought not that other people had been happy, but that we, or that our children, were going to be. The two feelings are totally different. Supposing we were to discover on some Egyptian papyrus a receipt for making a certain delicious tart, the pleasure we might take in eating the tart ourselves would have nothing to do with any gratification at the pleasure it gave Sesostris. The conclusion, then, that we may draw from our obvious apathy as to the happiness of our remote ancestors is that we are really equally apathetic as to the happiness of our remote descendants. As the past ceases to be remote — as it becomes more and more recent, some faint pulsations of sympathy begin to stir in us; when we get to the lives of our grandfathers the feeling may be quite recognizable; when we get to the lives of our fathers, it may be strong. This is true; and the same thing holds good as to the future. We may feel strongly about the lives of our children, more weakly about the lives of our grandchildren, and then pres-

[1] Fleeting shades. — *Editors.*

ently we cease to have any feeling at all. Were we promised that progress in the future would be quicker than progress in the past, the case would change in proportion to this promised quickness; but this is precisely what we are not promised.

I said that this appeal to the past was suggested by the Optimists themselves. The feelings indeed which they dwell upon as producible are somewhat different from those on which I have just commented. But they are less to the point as indicating the possibility of any sympathy with the future, and are seen when analyzed to be even more fantastic. What the Optimist tells us that we ought to feel, can feel, and if we do but think over things, must feel, is not so much gladness or sorrow at our ancestors having been happy or unhappy, as gratitude towards them for the happiness that their efforts have secured for us. Now the efforts of our ancestors have secured us a great number of things; if they have secured us our happiness they have secured us also our afflictions. If we owe to them our present medical skill, we also owe to them consumption, and gout, and scrofula. Our gratitude therefore is to be of a somewhat eclectic character. Its object is not the whole of our ancestors, but only that proportion of them whose lives have been beneficial to us. But we can never know accurately what that proportion is. It is an undistinguished part of a dimly apprehended whole. How are we to be grateful to a shadowy abstraction like this? Mr. Harrison might tell us, and he actually does tell us, that we know our ancestral benefactors through certain illustrious specimens of them — "poets, artists, thinkers, teachers, rulers, discoverers;" indeed, he says that the worshiping gratitude in question "is felt in its most definite mode when we enter into communion" with such great men as these. This no doubt makes the idea clearer; but it only does so to make its absurdity clearer also. Some great men have done good to posterity — good which we feel now; but many have done evil; and there are wide differences of opinion as to which of them has done what. Is Frederick the Great, for instance, to be the object of worshiping gratitude, or of aversion? Are we to enter into

communion with him, or avoid him? Or supposing all such doubts as these to be settled, and the calendar of the saints of progress to be edited to the satisfaction of us all, there are difficulties still greater behind. Many men whose actions have been undoubtedly beneficial, have been personally of exceedingly doubtful character; the good they have done to posterity has been in many cases unforeseen and unintended by themselves; or even if they have foreseen it, love of posterity has not been their motive in doing it. Who, for instance, feels any worshiping gratitude to Lord Bacon? We may admire his genius, or may recognize his services; but benefit to us was not his object in producing them, and therefore our gratitude is not their recompense. It is as irrational to be grateful for an unintended benefit as it is to be angry for an unintended injury. Of course we have some feeling about such great men. It is shown in its strongest form in the people we call hero-worshipers. But the feeling of the hero-worshiper is the very reverse of the vicarious feeling for humanity postulated by our Optimists. The hero-worshiper admires his heroes because they differ from the rest of mankind, not because they resemble and represent them. Even could we imagine that one or two great men actually foresaw our existence, and toiled for us with a prophetic love, we cannot imagine this of the great masses of our predecessors. So far as they are concerned, we are the accidental inheritors of goods which they laid up for themselves; and if there is any reason to praise them for what they have done well, there is equal reason to grumble at them for not having done it better.

If these reflections do not appear conclusive, let us turn from our ancestral benefactors to our remote contemporary benefactors. Our attitude towards them will enlighten us somewhat further. To some of the remotest of our contemporaries we owe some of our homeliest comforts. To take one instance out of many, we owe tea to the Chinese. Now does any English tea-drinker feel any worshiping gratitude towards the Chinese? We care for them as little as they care for us; and if learnt tomorrow that the whole Chinese race was a myth, it is doubtful

if one of us would eat a worse dinner for the news. If we feel so little about remote benefactors who are living, we shall hardly feel more about remote benefactors who are dead; and we shall feel less about remote recipients of benefits who will not be born for an eternity.

To sum up, then, what experience teaches us as the extent to which an idea like that of human progress, moving imperceptibly to a goal incalculably distant, is able to affect the feelings of the ordinary individual, we must say that there is no evidence of any sort or kind that for practical purposes it is able to affect them at all.

And now let us pass on from this consideration to another. The emotions required by the Optimist we have shown to be not possible. Let us now consider how, supposing they were possible, they would be likely to influence action. We shall see that their influence, at the best, would be necessarily very feeble; and that it would be enfeebled by the very conditions which we mainly counted on to strengthen it. Supposing the human race could last only another two years, even Mr. Harrison would admit that we might well be indifferent about improving it, and feel sad rather than elated at its destiny. As it is, Mr. Harrison, though he cannot say that it is eternal, yet promises it a duration which is an eternity for all practical purposes; and he conceives that in doing this he is investing it with interest and with dignity. He thinks that, within limits, the longer the race lasts, the more worthy of the service it will seem to our enlightened reason. One of the most solemn reflections which he presses on our hearts is this, that the consequences of each one of our lives will continue *ad infinitum*.

Now, from one point of view Mr. Harrison is perfectly right. Granting that we believe in progress, and that our feelings are naturally affected by it, among the chief elements in it which cause it thus to affect them will be its practical eternity — its august magnitude. But the moment we put these feelings, as it were, into harness, and ask them to produce for us action and self-sacrifice, we shall find that the very elements which have

excited the wish to act have an equal tendency to enervate the will. We shall find that, as the porter in *Macbeth* says, they are "equivocators." They "provoke the desire, but take away the performance." For the longer the period we assign to the duration of the human race and of progress, the mightier the proportions of the cause we are asked to work for, the smaller will be the result of our efforts in proportion to the great whole; less and less would each additional effort be missed. If the consequences of our lives ceased two years after our death, the power of these consequences, it is admitted, would be slight either as a deterrent or a stimulant. Mr. Harrison thinks that they will gain force, through our knowledge that they will last *ad infinitum*. But he quite forgets the other side of the question, that the longer they last they are a constantly diminishing quantity, ever less and less appreciable by any single human being, and that we can only think of them as infinite at the expense of thinking of them as infinitesimal.

Now, as I pointed out before, it is a rule of human conduct that there must to produce an act be some equality between the effort and the expected result; but in the case of any effort expended for the sake of general progress there is no equality at all. And not only is there no equality, but there is no certain connection. The best-meant efforts may do harm instead of good; and if good will be really done by them, it is impossible to realize what good. How many workmen of the present day would refuse an annuity of two hundred a year, on the chance that by doing so they might raise the rate of wages one per cent in the course of three thousand years? But why talk of three thousand years? Our care, as a matter of fact, does not extend three hundred. Do we any of us deny ourselves a single scuttle of coals, so as to make our coal fields last for one more unknown generation? It is perfectly plain we do not. The utter inefficacy of the motives supplied by devotion to progress, for its own sake, may at once be realized by comparing them with the motives supplied by devotion to it for the sake of Christianity. The least thing that the Christian does to others he does to Christ. However slight

the result, Christ judges it by the effort and the intention; a single mite may be valued by him as much as a thousand pounds; and however far away from us may be the human beings we benefit, Christ, who is served through them, is near. But the naked doctrine of progress has no idea in it at all analogous to this idea of Christ. Compared with Christianity it is like an optical instrument with some essential lens wanting. Christianity made our infinitesimal influence infinite; scientific Optimism makes our infinite influence infinitesimal.

But perhaps it will be said that the idea of general progress is not supposed to move and stimulate us directly, but is embodied for each one of us in some homely and definite service which we can do to those about us; and that we do not do such service for the love of the race in general, but rise to the general love through doing the particular services. The answer to this is obvious. If this is all that is claimed for the idea of progress, all claim for it that it influences action is abandoned. It does not tend to make men energetic, philanthropic, and useful who are not so naturally. Such men it leaves exactly as it finds them — the selfish, selfish still, and the filthy, filthy still. It affects those only who act well independently of it; and all that it can be supposed to do for these is not to make them choose a particular line of conduct, but to give them a new excuse for being pleased with themselves at having chosen it. This brings us back to the question of mere feeling; and the feeling supposed to be produced by the idea of progress, we have already seen to be a mere fancy and illusion. As I have taken special care to point out, nobody claims for Optimism that it supplies us with a rule of right. That is supplied by social science and experience. What is claimed for it is, that it gives us new motives for obeying this rule, and a feeling of blessedness in the thought that it is being obeyed. We have now seen that in no appreciable way has it any tendency to give us either.

All this while we have been supposing that progress was a reality, and inquiring if it will excite certain feelings. Let us now reverse our suppositions. Let us suppose the admittedly

real thing to be our capacity for the feelings, and inquire what grounds there are for believing in the progress which is to excite them. Of course the question is not one which can be argued out in a page or two; but we can take stock in a general way of what the arguments are. The first feature that strikes us in human history is change. Do these changes follow any intelligible order? If so, to what extent do they follow it? And is it an order which can afford us any rational satisfaction? Now that they follow some intelligible order to some extent is perfectly undeniable. The advance of certain races from savagery to civilization, and from a civilization that is simple to a civilization that is complex, is a fact staring all of us in the face; and with regard to certain stages of this advance, few people will seriously deny that it has been satisfactory. It is true that, putting aside all theological views of man, certain races of savages have in all probability been the happiest human animals that ever existed; still if we consider the earliest condition of the races that have become civilized, we may no doubt say that up to a certain point the advance of civilization made life a better thing for them. But is it equally plain that after a certain point has been past, the continuance of the advance has had the same sort of result? The inhabitants of France under Henri IV may have been a happier set of men than its inhabitants under Clovis; but were its inhabitants under Louis XVI a happier set of men than its inhabitants under Henri IV? Again, if civilizations rise, civilizations also fall. Is it certain that the new civilizations which in time succeed the old bring the human lot to a veritably higher level? To answer these questions, or even to realize what these questions are, we must brand into our consciousness many considerations which, though when we think of them they are truisms, we too often forget to think of. To begin, then: Progress for those who deny a God and a future life means nothing, and can mean nothing but such changes as may make men happier; and this meaning again further unfolds itself into a reference first to the intensity of the happiness; secondly, to the numbers who partake in it. Thus, what is

commonly called a superior civilization need not, after a certain step, indicate any real progress. It may even be a disguise of retrogression. It seems, for instance, hardly doubtful that in England the condition of the masses some fifty years ago was worse than it had been a hundred years before. The factory system during its earlier stages of development, though a main element in the most rapid advances of civilization ever known to the world, did certainly not add for the time to the sum total of happiness. The mere fact that it did not do so for the time is in itself no proof that it may not have done so since; but it is a proof that the most startling advances in science, and the mastery over nature that has come of them, need not necessarily be things which in their immediate results can give any satisfaction to the well-wishers of the race at large. But we may say more than this. Not only need material civilization indicate no progress in the lot of the race at large, but it may well be doubted if it really adds to the happiness of that part of the race who receive the fullest fruits of it. It is difficult in one sense to deny that express trains and Cunard steamships are improvements on mail coaches or wretched little sailing boats like the *Mayflower*. But are the public in trains happier than the public who went in coaches? Is there more peace or hope in the hearts of the men who go from New York to Liverpool in six days than there was in the hearts of the Pilgrim Fathers? No doubt we who have been brought up amongst modern appliances should be made miserable for the time if they were suddenly taken away from us. But to say this is a very different thing from saying that we are happier with them than we should have been if we had never had them. A man would be miserable who, being fat and fifty, had to button himself into the waistcoat which he wore when he had a waist and was nineteen. But this does not prove that a large-sized waistcoat makes his middle age a happier time than his youth. Advancing civilization creates wants, and it supplies wants; it creates habits and it ministers to habits; but it is not always exhilarating us with fresh surprises of pleasure. Suppose, however, we grant that

up to a certain point the increase of material wants, together with the means of meeting them, does add to happiness, it is perfectly evident that there is a point where this result ceases. A workman who dines daily off beefsteak and beer may be happier than one whose dinner is water and black bread; but a man whose dinner is ten different dishes need not be happier than the man who puts up with four. There is a certain point, therefore, not an absolute point, but a relative point, beyond which advances in material civilization are not progress any longer — not even supposing all classes to have a proportionate share in it. Accordingly the fact that inventions multiply, that commerce extends, that distances are annihilated, that country gentlemen have big battues, that farmers keep fine hunters, that their daughters despise butter making, and that even agricultural laborers have pink window blinds, is not in itself any proof of general progress. Progress is a tendency not to an extreme, but to a mean.

Let us now pass to another class of facts, generally held to show that progress is a reality; namely, the great men that civilization has produced. Let us, for instance, take a Shakespeare, or a Newton, or a Goethe, and compare them with the Britons and the Germans of the time of Tacitus. Do we not see an image of progress there? To this argument there is more than one answer. It is an argument that points to something, but does not point to so much as those who use it might suppose. No doubt a man like Newton would be an impossibility in an age of barbarism; we may give to civilization the whole credit of producing him, and admit that he is an incalculable advance on the shrewdest of unlettered savages. But though we find that civilizations produce greater men than barbarism, we do not find that the modern civilizations produce greater men than the ancient. Were they all to meet in the Elysian Fields Newton would probably not find Euclid his inferior, nor would Thucydides show like a dwarf by Professor Freeman. Further, not only do the limits of exceptional greatness show no tendency to expand, but the existence, at any point, of

exceptionally great men is no sure indication of any answering elevation amongst the masses, any more than the existence of exceptionally rich men is a sure indication that the masses are not poor. The intellectual superiority of Columbus to the American savages was, unfortunately, no sign that his followers were not in many ways inferior to them.

What, then, is the evidence that progress, in the sense of an increasing happiness for an increasing number, is really a continuous movement running through all the changes of history? It cannot be said that there are no facts which suggest such a conclusion, but they are absurdly insufficient in number, and they are balanced by others equally weighty, and of quite an opposite character. Isolated periods, isolated institutions, do indeed very strikingly exhibit the movement in question. One of the most remarkable instances of it is the development of the Church of Rome, looked at from the Catholic standpoint. Again, we constantly find periods in a nation's history during which the national happiness has demonstrably moved onwards. Few of the phenomena on which the faith in progress rests have given to that faith such a violent stimulus as the rapid movement observable in such periods. A case in point is the immense and undoubted improvement which during the past forty years has taken place in the condition of the working classes in England; and no doubt, in spite of the ruinous price paid for it, France purchased by the Revolution an improvement not dissimilar. But these movements are capable of an interpretation very different from that which our sanguine Optimists put on them. They resemble a cure from an exceptional disease rather than any strengthening of the normal health. The French Revolution has been thought by many to have been a chopping up of society and a boiling of it in Medea's caldron, from whence it should issue forth born into a new existence. In reality it resembled an ill-performed surgical operation, which may possibly have saved the nation's life, but has shattered its nerves and disfigured it till this day. Whilst as for ordinary democratic reforms — and this is plainest with regard to those which have

been most really needed — their utmost effect has been to cure a temporary pain, not to add a permanent pleasure. They have been pills, they have not been elixirs.[1]

The most authenticated cases, then, which we have of any genuine progress are to all appearance mere accidents and episodes. They are not analogous to a man progressing, but to a tethered animal which has slipped getting up on its legs again. As to the larger movements which form the main features of history, such as the rise of the Roman Empire, these movements, like waves, are always observed to spend themselves; and it is impossible to prove, without some aid from theology, that the new waves which have shaped themselves out of the subsided waters, are larger, higher, or more important than the last. This is true even of the parts of such movements as history principally records; but of the part, which for our modern Optimists is the most important — which is, indeed, the only important part for them, history can hardly be said to have left any general record at all. The important part of such movements is their relation to the happiness of the masses. Does any one pretend that we have any materials for tracing through the historic ages the fluctuations in the lot of the unnamed multitudes? Here and there some riot, some servile war, or some Jacquerie, shows us that at a certain period the masses in some special district were miserable, and we can trace through other periods some legal amelioration of their lot. But taking the historic periods of the world as a whole, the history of the happiness or the misery of the majority is a book of which everything has perished except some scattered fragments, the gaps between which can only be filled up by conjecture, in many cases not even by that; which fail to suggest in any serious way that

[1] The causes of material or national advance will be probably recognized in time as being mainly, though not entirely, due to the personal ambitions of a gifted and vigorous minority; and the processes which are now regarded as signs of a universal progress are constant cures, or attempts at cures, of the evils or maladjustments which are at first incident to any important change.

the happiness of the multitudes concerned has followed any intelligible order, and which certainly negatives the supposition that there has been any continuous advance in it. Mr. Harrison says that in three thousand years progress should at least be appreciable to the naked eye. Will Mr. Harrison, or any one else, maintain as scientifically demonstrated, that the children whipped to their work in our earlier English factories were happier than the Egyptian brickmakers amongst the melons and the fleshpots?

There is, however, another hypothesis possible, which may give the doctrine of progress a more scientific character. It may be said that though the changes of history hitherto have been seemingly vague and meaningless, they have been really preparatory for a movement which is about to begin now. Telegraphs, ocean steamers, express trains, and printing presses have, it may be admitted, done little for the general happiness as yet; their importance may have been slight if we regard them as mere luxuries: but all this while they have been knitting the races of men together; they have been making the oneness of Humanity a visible and accomplished fact; and very soon we shall all of us start in company on a march towards the higher things that the future has in store for us. What shall we say to some idea of this sort — that progress is a certainty henceforward, though it may have been doubtful hitherto? The idea is a pleasant one for the fancy to dwell upon, and it is easy to see how it may have been suggested by facts. But facts certainly give us no assurance that it is true; they do but suggest it, as a cloud may suggest a whale. It is no doubt easier to conceive the possibility of a general onward movement in the future than it is to conceive that of it as a reality in the past. Indeed no one can demonstrate that it will not actually take place. All I wish to point out is that there is no certainty that it will; and not only no certainty, but no balance of probability. The existing civilization, which some think so stable, and which seems, as I have said, to be uniting us into one community, contains in itself many elements of decay or of self-destruction.

In spite of the way in which the Western races seem to have covered the globe with the network of their power and commerce, they are outnumbered at this day in a proportion of more than two to one, by the vast nations who are utterly impervious to their influence — impervious to their ideas, and indifferent to their aspirations. What scientific estimate then can be made of the influence of the Mohammedan and Buddhist populations, to say nothing of the others equally alien to our civilization, who alone outnumber the entire brotherhood of the West? Who can forecast — to take a single instance — the part which may in the future be played by China? And again, who can forecast the effects of overpopulation? And who can fail to foresee that they may be far-reaching and terrible? How, in the face of disturbing elements like these, can the future of progress be anything more than a guess, a hope, an opinion, a poetic fancy? At all events, whatever it is, it is certainly not science.

Let us, however, suppose that it is science. Let us suppose that we have full and sufficient evidence to convince us of the reality and continuance of a movement, slow indeed as its exponents admit it to be, but evidently in the direction of some happy consummation in the future. Now what, let us ask, will this consummation be? It is put before us by the creed of Optimism as the ultimate justification of all our hope and enthusiasm, and, as Mr. Morley says, of our "provisional acquiescence" in the existing sorrows of the world. Does any one, then, profess to be able to describe it exactly to us? To ask this is no idle question. Its importance can be proved by reference to Mr. Harrison himself. He says that if a consummation in heaven is to have the least real influence over us, it is "not enough to talk of it in general terms." "The all-important point," he proceeds, "is what kind of heaven? Is it a heaven of seraphic beatitude and unending hallelujahs as imagined by Dante and Milton, or a life of active exertion? And if of active exertion (and what can life mean without exertion?) of what kind of exertion?" Now with regard to heaven it would be perfectly easy to show that this demand for exact knowledge is unreason-

able and unnecessary; for part of the attraction of the alleged beatitude of heaven consists in the belief that it passes our finite understanding, that we can only dimly augur it, and that we shall be changed before we are admitted to it. But with regard to any blessed consummation on the earth, such details as Mr. Harrison asks for are absolutely indispensable. Our Optimists tell us that, on the expiration of a practical eternity, there will be the beginnings at any rate of a blessed and glorious change in the human lot. In Mr. Harrison's words, I say, What kind of a change? Will it be a change tending to make life a round of idle luxury, or a course of active exertion? And if of active exertion, of what kind of exertion? Will it be practical or speculative? Will it be discovering new stars, or making new dyes out of coal tar? No one can tell us.

On one point no doubt we should find a consensus of opinion; but this point would be negative, not positive. We should be told that poverty, overwork, most forms of sickness, and acute pain would be absent; and surely it may be said that this is a consummation fit to be striven for. No doubt it is; but from the Optimist's point of view, this admission does absolutely nothing to help us. The problem is to construct a life of superlative happiness; and to eliminate physical suffering is merely to place us on the naked threshold of our enterprise. Suppose I see in the street one day some poor orphan girl, utterly desolate, and crying as if her heart would break. That girl is certainly not happy. Let us suppose I see the same girl next day, equally desolate, but distracted by an excruciating toothache. I could not restore her parents to her, but I can, we will say, cure her toothache, and I do. I ease her of a terrible pain. I cause her unutterable relief; and no doubt in doing so I myself feel happy; but as to the orphan all I do is this — I restore her to her original misery. And so far as the mere process of stamping out pain is concerned, there is nothing to show that it might not leave life in no better position than that of an orphan cured of a toothache. Indeed, if we may trust the suggestion thrown out by optimistic writers, it would not, even so far as it went,

be an unmixed good. These writers have often hinted that pain and trouble probably deepen our pleasures; so if pain and trouble were ever done away with, the positive blessings of life might, on their own showing, be not heightened but degraded.

Again, let us approach the question from another side; and instead of regarding progress as an extinction of pain, let us regard it as the equitable distribution of material comforts amongst all. No one would wish to speak flippantly — or at all events no sane man can think lightly — of the importance of giving to all a sufficiency of daily bread. But however we realize that privation and starvation are miseries, it does not follow — indeed we know it not to be true — that a light heart goes with a full stomach. Or suppose us to conceive that in the future it would come to do so, and that men would be completely happy when they all had enough to eat, would this be a consummation calculated to raise our enthusiasm, or move our souls with a solemn zeal to work for it? Would any human being who was ever capable of anything that has ever been called a high conception of life, feel any pleasure in the thought of a Humanity, "shut up in infinite content," when once it had secured itself three meals a day, and smiling every morning a satisfied smile at the universe, its huge lips shining with fried eggs and bacon?

I am not for an instant saying that mere physical well-being is the only sort of happiness to which Optimists look forward. But it is the only sort of happiness about which their ideas are at all definite; and I have alluded to it as I have done, merely to point out that their only definite ideas are ridiculously insufficient ideas. I do not doubt for a moment that thinkers like Mr. Harrison anticipate for transfigured Humanity pleasures which to them seem nobler than the noblest we can enjoy now; but about these pleasures I say there is no consensus of opinion; what opinion there is, is quite indefinite, and there is nothing to show that these pleasures will ever be realized, and judging from the hints we have of them, there is much to show that they would be impossible. To sum up then, the altered Humanity

of the future, even granting that we are advancing towards it, may be compared to an image of which one part only is definite. It is not like an image with feet of clay and with a head of gold, but like an image with a stomach of clay, and everything else of cloud.

We have now examined the creed of Optimism from two points of view, assuming in turn the truth of each one of its two propositions, and inquiring into the truth of the other. We first assumed the reality of progress, and asked how far our sympathy was capable of being stimulated by it; we next assumed the alleged capacities of our sympathy, and asked what grounds there were for any belief in a progress by which sympathy of the assumed kind could be roused. And we have seen that, so far as scientific evidence is concerned, both the propositions in question are unsupported and fanciful.

There remains for us yet a third test to submit it to, and this will be found to be the most fatal of all. Let us assume, for argument's sake, that both the propositions are true; and we shall see that they contain in themselves elements by which their supposed meaning is annihilated. Let us assume, then, that progress will, in process of time, produce a state of society which we should all regard as satisfactory; and let us assume that our sympathies are of such a strength and delicacy that the far-off good in store for our remote descendants will be a source of real comfort to our hearts and a real stimulus to our actions — that it will fill life, in fact, with moral meanings and motives. It will only require a very little reflection to show us that if sympathy is really strong enough to accomplish this work, it will inevitably be strong enough to destroy the work which it has accomplished. If we are, or if we should come to be, so astonishingly sensitive that the remote happiness of posterity will cause us any real pleasure, the incalculable amount of pain that will admittedly have preceded such happiness, that has been suffered during the countless years of the past, and will have to be suffered during the countless intervening years of the future, must necessarily convert such pleasure into agony. It

is impossible to conceive, unless we throw reality overboard altogether, and decamp frankly into dreamland — it is impossible to conceive our sympathy being made more sensitive to the happiness of others, without its being made also more sensitive to their misery. One might as well suppose our powers of sight increased, but increased only so as to show us agreeable objects; or our powers of hearing increased, but increased only so as to convey to us our own praises.

Can any one for an instant doubt that this is a fact? Can he trick himself in any way into any, even the slightest, evasion of it? Can he imagine himself, for instance, having a sudden interest roused in him, from whatever cause, in the fortunes of some young man, and yet not feel a corresponding shock if the young man should chance to be hanged for murder? The idea is ridiculous. The truth of the matter is, that unless our sympathies had a certain obtuseness and narrowness in them, we should be too tender to endure a day of life. The rose leaves might give a keener pleasure; but we should be unable to think of it, because our skins would be lacerated with thorns. What would happen to us if, retaining the fastidiousness of man, we suddenly found that our nostrils were as keen as those of dogs? We should be sick every time we walked through a crowded street. Were our sympathies intensified in a similar way, we should pass through life not sick, but broken-hearted. The whole creation would seem to be groaning and travailing together; and the laughter and rejoicing of posterity would be drowned by the intervening sounds, or else would seem a ghastly mockery.

But suppose — we have been waiving objections, and we will now waive them again — suppose that the intervening pain does somehow not inconvenience us; and that our sympathies, "on this bank and shoal of time, jump it," and bring us safely to the joy and prosperity beyond. Now this jump, on Mr. Harrison's own showing, will carry us across an eternity. It will annihilate the distance between our own imperfect condition and our posterity's perfect condition. But how does Mr. Harrison imagine that it will stop there? He admits that

all human existence will come to an end some day, but the end, he thinks, does not matter because it is so far off. But if sympathy acquires this power of jumping across eternities, the end ceases to be far off any longer. The same power that takes us from the beginnings of progress to the consummation of progress will take us from the consummation of progress to its horrible and sure destruction — to its death by inches, as the icy period comes, turning the whole earth into a torture chamber, and effacing forever the happiness and the triumph of man in a hideous and meaningless end. Knowing that the drama is thus really a tragedy, how shall we be able to pretend to ourselves that it is a divine comedy? It is true that death waits for all and each of us; and yet we continue to eat, drink, and be merry: but that is precisely because our sympathies have not those powers which Mr. Harrison asserts they have, because instead of connecting us with what will happen to others in three thousand years, it connects us only slightly with what will happen to ourselves in thirty.

We thus see that the creed of Optimism is composed of ideas that do not even agree with each other. They might do that, however, and yet be entirely false. The great question is, do they agree with facts? and not only that, but are they forced on us by facts? Do facts leave us no room for rationally contradicting or doubting them? In a word, have they any basis even approximately similar to what would be required to support a theory of light, or heat, or electricity, of the geologic history of the earth, or of the evolution of species? Is the evidence for their truth as overwhelming and as unanimous as the evidence Professor Huxley would require to make him believe in a miracle? Or have they ever been submitted to the same eager and searching skepticism which has sought for and weighed every fact, sentence, and syllable that might tend to make incredible our traditional conception of the Bible? They certainly have not. The treatment they have met with has been not only not this, but the precise opposite. Men who claim to have destroyed Christianity in the name of science justify

their belief in Optimism by every method that their science stigmatizes as most immoral. Mr. Harrison admits, with relation to Christianity, that the Redemption became incredible with the destruction of the geocentric theory, because the world became a speck in the universe, infinitely too little for so vast a drama. But when he comes to defending his own religion of Optimism he says, "the infinite littleness of the world" is a thought we "will put away from us" as an "unmanly and unhealthy musing." Similarly Mr. John Morley, who admits with great candor that many facts exist which suggest doubts of progress, instead of examining these doubts and giving their full weight to them, tells us that we ought to set them aside as "unworthy." Was ever such language heard in the mouths of scientific men about any of those subjects which have formed their proper studies? It is rather a parody of the language of such men as Keble, who declared that religious skeptics were too wicked to be reasoned with, and who incurred, for this reason more than any other, the indignant scorn of all our scientific critics. Which of such critics was ever heard to defend a theory of the authorship of Job or of the Pentateuch by declaring that any doubts of their doubts were "unmanly," or "unhealthy"? Who would answer an attack on the Darwinian theory of coral reefs by calling it "unworthy"? or meet admitted difficulties in the way of a theory of light by following Mr. Harrison's example, and saying, "we will put them aside"?

Let the reader consider another statement explicitly made by Mr. John Morley relative to this very question of Optimism. He quotes the following passage from Diderot: "Does the narrative present me with some fact that dishonors humanity? Then I examine it with the most rigorous severity. Whatever sagacity I may be able to command I employ in detecting contradictions that throw suspicion on the story. It is not so when the action is beautiful, lofty, noble." "*Diderot's way*," says Mr. Morley, "*of reading history is not unworthy of imitation.*" Is it necessary to quote more? This astonishing sentence — not astonishing for the fact it admits, but for the

naïve candor of the admission — describes in a nutshell the method which men of science, who have attacked Christianity in the name of the divine duty of skepticism, and of a conscience which forbids them to believe anything not fully proved — this sentence describes the method which such men consider scientific when establishing a religion of their own. Let us swallow whatever suits us; whatever goes against us let us examine with the most rigorous severity.

No feature in the history of modern thought is more instructive than the contrast I have just indicated — the contrast between the skepticism, and the exactingness of science, in its attack on Christianity, and its abject credulity in constructing a futile substitute. That there is no universal, no continuous meaning in the changes of human history, that progress of some sort may not be a reality, I am not for a moment arguing. All I have urged hitherto is, that there is no evidence, such as would be accepted either in physical or philosophical science, to prove there is. The facts, no doubt, suggest any number of meanings, but they support none; and if Professor Huxley is right in saying that it is very immoral in us to believe in such doubtful books as the Gospels, it must be far more immoral in him to believe in the meaning of human existence. What the spectacle of the world's history would really suggest to an impartial scientific observer, who had no religion and who had not contracted to construct one, is a conclusion eminently in harmony with the drift of scientific speculation generally. The doctrines of natural selection and the survival of the fittest, imply on the part of nature a vast number of failures — failures complete or partial. The same idea may be applicable to worlds, as to species in this world. If we conceive, as we have every warrant for conceiving, an incalculable number of inhabited planets, the history of their crowning races will, according to all analogy, be various. Some will arrive at great and general happiness, some at happiness partial and less complete, some may very likely, as long as their inhabitants last, be hells of struggle and wretchedness. Now what to an impartial observer the history of the earth would

suggest, would be that it occupied some intermediate position between the completest successes and the absolutely horrible failures — a position probably at the lower end of the scale, though many degrees above the bottom of it. Considered in this light its history becomes intelligible, because we cease to treat as hieroglyphs full of meaning a series of marks which have really no meaning at all. We shall see constant attempts at progress, we shall see progress realized in certain places up to a certain point; but we shall see that after a certain point, the castle of cards or sand falls to pieces again; and that others attempt to rise, perhaps even less successfully. We still see numberless words shaping themselves, but never any complete sentence. Taken as a whole, we shall be reminded of certain lines, which I have already alluded to, referring to an "idiot's tale." The destinies of humanity need not be all sound and fury; but certainly regarding them as a whole, we shall have to say of them, that they are a tale without plot, without coherence, without interest — in a word, that they signify nothing.

I do not say for a moment that this is the truth about Humanity; but that this is the kind of conclusion which we should probably arrive at if we trusted to purely scientific observation, with no preconceived idea that life must have a meaning, and no interest in giving it one. No doubt such a view, if true, would be completely fatal to everything which to men, in what hitherto we have called their higher moments, has made life dignified, serious, or even tolerable. Hitherto in those higher moments they have risen, like the philosophers out of Plato's cavern, from their narrow selfish interests, into the light of a larger outlook, and seen that life is full of august meanings. But that light has not been the light of science. Science will give men a larger outlook also; but it will raise them above their narrower interests, not to show them wider ones, but to show them none at all. If then the light that is in us is darkness, we may well say, how great is that darkness! It is from this darkness that religion comes to deliver us, not by destroying what science has taught us, but by adding to it something that it has not taught us.

Whether we can believe in this added something or not is a point I have in no way argued. I have not sought to prove that life has no meaning, but merely that it has none discoverable by the methods of modern science. I will not even say that men of science themselves are not certain of its existence, and may not live by this certainty; but only that, if so, they are unaware whence this certainty comes, and that though their inner convictions may claim our most sincere respect, their own analysis of them deserves our most contemptuous ridicule.

If there is a soul in man, and if there is a God who has given this soul, the instinct of religion can never die; but if there is any authentic explanation of the relations between the soul and God, and for some reason or other men in any way cease to accept this, their own explanations may well, by a gradual process, resolve themselves into a denial of the theory they seek to explain. And such, according to our men of science themselves, has been the case with the orthodox Christian faith, when once it began to be disintegrated by the solvent of Protestantism. The process is forcibly alluded to by Mr. Harrison. Traditional Protestantism dissolved into the nebulous tenets of the Broad Churchmen; the tenets of the Broad Churchmen dissolved into Deism, Deism into Pantheism and the cultus of the Unknowable, and the last into Optimism. Mr. Harrison fails to read the lesson of history further, and to see that Optimism in its turn must yield to the solvent of criticism, and leave the religious instinct, or what is the same thing, a sense of a meaning in life, as a forlorn and bewildered emotion without any explanation of itself at all. What Optimism is at present must be abundantly evident. It is the last attempt to discover a peg on which to hang the fallen clothes of Christianity. As Mr. Harrison tells us, most of our scientific Optimists have been brought up with all the emotions of that faith. They have got rid of the faith, but the emotions have been left on their hands. They long for some object on which to lavish them, just as Don Quixote longed to find a lady-love; and if we may judge from certain phrases of Mr. Harrison, they have modestly contented themselves with asking not that

the object should be a truth, but merely that it should not, on the face of it, be a falsehood. He does not ask how well Humanity deserves to be thought of, but how well he and his friends will be able to think of it. Once more let us say that this emotion which they call the love of Humanity is not an emotion I would ridicule. I only ridicule their bestowal of it. The love of Humanity, with no faith to enlighten it, and nothing to justify it beyond what science can show, is as absurd as the love of Titania lavished on Bottom; and the high priests of Humanity, with their solemn and pompous gravity, are like nothing so much as the Bumbles of a squabbling parish. We all know what Hobbes said to Catholicism, that it was the ghost of the dead Roman Empire, sitting enthroned on the ashes of it. Optimism, in the same way, is the ghost of Protestantism sitting on its ashes, not enthroned but gibbering.

I hope that before long I may again return to this subject, to touch on many points which I have been unable to glance at now. On former occasions I have been asked by certain critics what possible use, even suppose life is not worth much, I could hope to find in laying the fact bare. To the Optimists as men of science no explanation is needed. Every attempt to establish any truth, or even to establish any doubt, according to their principles is not only justifiable, but is a duty. To others, an explanation will not be very far to seek. If there is a meaning in life, we shall never understand it rightly till we have ceased to amuse ourselves with understanding it wrongly. Humanity, if there is any salvation for it, will never be saved till it sees that it cannot save itself, and asks in humility, seeking some greater power, Who shall deliver me from the body of this death? But as matters stand, it will never see this or ask this, till it has seen face to face the whole of its ghastly helplessness, and tasted — at least intellectually — the dregs of its degradation. When we have filled our bellies with the husks that swine eat, it may be that we shall arise and go.

VIII

DARWIN ON THE ORIGIN OF SPECIES

THOMAS HENRY HUXLEY

[The present essay by Huxley, published in the *Westminster Review* in April, 1860, was one of the earliest reviews of Darwin's epoch-making work, *The Origin of Species*. Darwin's book is so stupendous an accumulation of scientific data that it needed at the time, and needs now for the casual student, an interpreter. Huxley fulfilled this function with great success for many years. This article, in fact, is only one of a large number of essays and addresses by Huxley which present the substance of Darwin's investigations in a popular, readily comprehensible light. Huxley's opposition to the advocates of the theory of special creation, who represented then in the main the conservative religious element, may seem unnecessarily harsh; but it must be remembered that in that day the "battle-ground of religion and science" was emphatically real. Dogmatic churchmen of Huxley's time conceived science as nursing an antagonism that could be appeased only by the utter destruction of religious sentiment. That Huxley was mistakenly held to be an arch enemy of religion may be seen in his numerous temperate and open-minded writings on the relations of scientific and spiritual beliefs.

This essay is a competent discussion of the principal points of the Darwinian theory, although these points are presented with Huxley's characteristic caution. The fact is here emphasized that Darwin's hypothesis, like all hypotheses, can be accepted only tentatively, until supported by a convincing mass of corroborative evidence. The scientific attitude of our day, however, holds, as Professor E. B. Wilson expresses it, that "biological investigators have long since ceased to regard the fact of organic evolution as open to serious discussion."]

MR. DARWIN'S long-standing and well-earned scientific eminence probably renders him indifferent to that social notoriety which passes by the name of success; but if the calm spirit of the philosopher have not yet wholly superseded the ambition and the vanity of the carnal man within him, he must be well satisfied with the results of his venture in publishing the *Origin of*

Species. Overflowing the narrow bounds of purely scientific circles, the "species question" divides with Italy and the Volunteers the attention of general society. Everybody has read Mr. Darwin's book, or, at least, has given an opinion upon its merits or demerits; pietists, whether lay or ecclesiastic, decry it with the mild railing which sounds so charitable; bigots denounce it with ignorant invective; old ladies, of both sexes, consider it a decidedly dangerous book, and even savants, who have no better mud to throw, quote antiquated writers to show that its author is no better than an ape himself; while every philosophical thinker hails it as a veritable Whitworth gun in the armory of liberalism; and all competent naturalists and physiologists, whatever their opinions as to the ultimate fate of the doctrines put forth, acknowledge that the work in which they are embodied is a solid contribution to knowledge and inaugurates a new epoch in natural history.

Nor has the discussion of the subject been restrained within the limits of conversation. When the public is eager and interested, reviewers must minister to its wants; and the genuine *littérateur* is too much in the habit of acquiring his knowledge from the book he judges — as the Abyssinian is said to provide himself with steaks from the ox which carries him — to be withheld from criticism of a profound scientific work by the mere want of the requisite preliminary scientific acquirement; while, on the other hand, the men of science who wish well to the new views, no less than those who dispute their validity, have naturally sought opportunities of expressing their opinions. Hence it is not surprising that almost all the critical journals have noticed Mr. Darwin's work at greater or less length; and so many disquisitions, of every degree of excellence, from the poor product of ignorance, too often stimulated by prejudice, to the fair and thoughtful essay of the candid student of nature, have appeared, that it seems an almost hopeless task to attempt to say anything new upon the question.

But it may be doubted if the knowledge and acumen of prejudged scientific opponents, or the subtlety of orthodox special

pleaders, have yet exerted their full force in mystifying the real issues of the great controversy which has been set afoot, and whose end is hardly likely to be seen by this generation; so that at this eleventh hour, and even failing anything new, it may be useful to state afresh that which is true, and to put the fundamental positions advocated by Mr. Darwin in such a form that they may be grasped by those whose special studies lie in other directions. And the adoption of this course may be the more advisable, because notwithstanding its great deserts, and indeed partly on account of them, the *Origin of Species* is by no means an easy book to read — if by reading is implied the full comprehension of an author's meaning.

We do not speak jestingly in saying that it is Mr. Darwin's misfortune to know more about the question he has taken up than any man living. Personally and practically exercised in zoölogy, in minute anatomy, in geology; a student of geographical distribution, not on maps and in museums only, but by long voyages and laborious collection; having largely advanced each of these branches of science, and having spent many years in gathering and sifting materials for his present work, the store of accurately registered facts upon which the author of the *Origin of Species* is able to draw at will is prodigious.

But this very superabundance of matter must have been embarrassing to a writer who, for the present, can only put forward an abstract of his views; and thence it arises, perhaps, that notwithstanding the clearness of the style, those who attempt fairly to digest the book find much of it a sort of intellectual pemmican — a mass of facts crushed and pounded into shape, rather than held together by the ordinary medium of an obvious logical bond: due attention will, without doubt, discover this bond, but it is often hard to find.

Again, from sheer want of room, much has to be taken for granted which might readily enough be proved; and hence, while the adept, who can supply the missing links in the evidence from his own knowledge, discovers fresh proof of the singular thoroughness with which all difficulties have been considered and all

unjustifiable suppositions avoided, at every reperusal of Mr. Darwin's pregnant paragraphs, the novice in biology is apt to complain of the frequency of what he fancies is gratuitous assumption.

Thus while it may be doubted if, for some years, any one is likely to be competent to pronounce judgment on all the issues raised by Mr. Darwin, there is assuredly abundant room for him, who, assuming the humbler, though perhaps as useful, office of an interpreter between the *Origin of Species* and the public, contents himself with endeavoring to point out the nature of the problems which it discusses; to distinguish between the ascertained facts and the theoretical views which it contains; and finally, to show the extent to which the explanation it offers satisfies the requirements of scientific logic. At any rate, it is this office which we purpose to undertake in the following pages.

It may be safely assumed that our readers have a general conception of the nature of the objects to which the word "species" is applied; but it has, perhaps, occurred to a few, even to those who are naturalists *ex professo*, to reflect that, as commonly employed, the term has a double sense and denotes two very different orders of relations. When we call a group of animals, or of plants, a species, we may imply thereby either that all these animals or plants have some common peculiarity of form or structure; or we may mean that they possess some common functional character. That part of biological science which deals with form and structure is called Morphology — that which concerns itself with function, Physiology — so that we may conveniently speak of these two senses or aspects of "species" — the one as morphological, the other as physiological. Regarded from the former point of view, a species is nothing more than a kind of animal or plant, which is distinctly definable from all others by certain constant and not merely sexual, morphological peculiarities. Thus horses form a species, because the group of animals to which that name is applied is distinguished from all others in the world by the following constantly associated characters. They have (1) A vertebral column; (2) Mammæ;

(3) A placental embryo; (4) Four legs; (5) A single well-developed toe in each foot provided with a hoof; (6) A bushy tail; and (7) Callosities on the inner sides of both the fore and the hind legs. The asses, again, form a distinct species, because, with the same characters, as far as the fifth in the above list, all asses have tufted tails, and have callosities only on the inner side of the fore legs. If animals were discovered having the general characters of the horse, but sometimes with callosities only on the fore legs, and more or less tufted tails; or animals having the general characters of the ass, but with more or less bushy tails, and sometimes with callosities on both pairs of legs, besides being intermediate in other respects — the two species would have to be merged into one. They could no longer be regarded as morphologically distinct species, for they would not be distinctly definable one from the other.

However bare and simple this definition of species may appear to be, we confidently appeal to all practical naturalists, whether zoölogists, botanists, or paleontologists, to say if, in the vast majority of cases, they know, or mean to affirm, anything more of the group of animals or plants they so denominate than what has just been stated. Even the most decided advocates of the received doctrines respecting species admit this.

"I apprehend," says Professor Owen,[1] "that few naturalists nowadays, in describing and proposing a name for what they call 'a new *species*,' use that term to signify what was meant by it twenty or thirty years ago; that is, an originally distinct creation, maintaining its primitive distinction by obstructive generative peculiarities. The proposer of the new species now intends to state no more than he actually knows; as for example, that the differences on which he founds the specific character are constant in individuals of both sexes, so far as observation has reached; and that they are not due to domestication or to artificially superinduced external circumstances, or to any outward

[1] "On the Osteology of the Chimpanzees and Orangs," *Transactions of the Zoölogical Society*, 1858.

influence within his cognizance; that the species is wild, or is such as it appears by nature."

If we consider, in fact, that by far the largest proportion of recorded existing species are known only by the study of their skins, or bones, or other lifeless exuvia; that we are acquainted with none, or next to none, of their physiological peculiarities beyond those which can be deduced from their structure, or are open to cursory observation; and that we cannot hope to learn more of any of those extinct forms of life which now constitute no inconsiderable proportion of the known Flora and Fauna of the world; it is obvious that the definitions of these species can be only of a purely structural or morphological character. It is probable that naturalists would have avoided much confusion of ideas if they had more frequently borne these necessary limitations of our knowledge in mind. But while it may safely be admitted that we are acquainted with only the morphological characters of the vast majority of species, the functional or physiological peculiarities of a few have been carefully investigated, and the result of that study forms a large and most interesting portion of the physiology of reproduction.

The student of nature wonders the more and is astonished the less, the more conversant he becomes with her operations; but of all the perennial miracles she offers to his inspection, perhaps the most worthy of admiration is the development of a plant or of an animal from its embryo. Examine the recently laid egg of some common animal, such as a salamander or a newt. It is a minute spheroid in which the best microscope will reveal nothing but a structureless sac, inclosing a glairy fluid, holding granules in suspension. But strange possibilities lie dormant in that semi-fluid globule. Let a moderate supply of warmth reach its watery cradle, and the plastic matter undergoes changes so rapid and yet so steady and purpose-like in their succession, that one can only compare them to those operated by a skilled modeler upon a formless lump of clay. As with an invisible trowel, the mass is divided and subdivided into smaller and smaller portions,

until it is reduced to an aggregation of granules not too large to build withal the finest fabrics of the nascent organism. And, then, it is as if a delicate finger traced out the line to be occupied by the spinal column, and molded the contour of the body; pinching up the head at one end, the tail at the other, and fashioning flank and limb into due salamandrine proportions, in so artistic a way, that, after watching the process hour by hour, one is almost involuntarily possessed by the notion that some more subtle aid to vision than an achromatic would show the hidden artist, with his plan before him, striving with skillful manipulation to perfect his work.

As life advances, and the young amphibian ranges the waters, the terror of his insect contemporaries, not only are the nutritious particles supplied by its prey, by the addition of which to its frame growth takes place, laid down, each in its proper spot, and in such due proportion to the rest, as to reproduce the form, the color, and the size, characteristic of the parental stock; but even the wonderful powers of reproducing lost parts possessed by these animals are controlled by the same governing tendency. Cut off the legs, the tail, the jaws, separately or all together, and, as Spallanzani showed long ago, these parts not only grow again, but the redintegrated limb is formed on the same type as those which were lost. The new jaw or leg is a newt's, and never by any accident more like that of a frog. What is true of the newt is true of every animal and of every plant; the acorn tends to build itself up again into a woodland giant such as that from whose twig it fell; the spore of the humblest lichen reproduces the green or brown incrustation which gave it birth; and at the other end of the scale of life, the child that resembles neither the paternal nor the maternal side of the house would be regarded as a kind of monster.

So that the one end to which in all living beings the formative impulse is tending — the one scheme which the Archæus of the old speculators strives to carry out — seems to be to mold the offspring into the likeness of the parent. It is the first great law of reproduction, that the offspring tends to resemble its parent or parents, more closely than anything else.

Science will some day show us how this law is a necessary consequence of the more general laws which govern matter; but for the present, more can hardly be said than that it appears to be in harmony with them. We know that the phenomena of vitality are not something apart from other physical phenomena, but one with them; and matter and force are the two names of the one artist who fashions the living as well as the lifeless. Hence, living bodies should obey the same great laws as other matter — nor, throughout nature, is there a law of wider application than this, that a body impelled by two forces takes the direction of their resultant. But living bodies may be regarded as nothing but extremely complex bundles of forces held in a mass of matter, as the complex forces of a magnet are held in the steel by its coercive force; and since the differences of sex are comparatively slight, or, in other words, the sum of the forces in each has a very similar tendency, their resultant, the offspring, may reasonably be expected to deviate but little from a course parallel to either, or to both.

Represent the reason of the law to ourselves by what physical metaphor or analogy we will, however, the great matter is to apprehend its existence and the importance of the consequences deducible from it. For things which are like to the same are like to one another, and if, in a great series of generations, every offspring is like its parent, it follows that all the offspring and all the parents must be like one another; and that, given an original parental stock with the opportunity of undisturbed multiplication, the law in question necessitates the production, in course of time, of an indefinitely large group, the whole of whose members are at once very similar and are blood relations, having descended from the same parent, or pair of parents. The proof that all the members of any given group of animals, or plants, had thus descended would be ordinarily considered sufficient to entitle them to the rank of physiological species, for most physiologists consider species to be definable as "the offspring of a single primitive stock."

But though it is quite true that all those groups we call species

may, according to the known laws of reproduction, have descended from a single stock, and though it is very likely they really have done so, yet this conclusion rests on deduction and can hardly hope to establish itself upon a basis of observation. And the primitiveness of the supposed single stock, which, after all, is the essential part of the matter, is not only a hypothesis, but one which has not a shadow of foundation, if by "primitive" be meant "independent of any other living being." A scientific definition, of which an unwarrantable hypothesis forms an essential part, carries its condemnation within itself; but even supposing such a definition were, in form, tenable, the physiologist who should attempt to apply it in nature would soon find himself involved in great, if not inextricable difficulties. As we have said, it is indubitable that offspring *tend* to resemble the parental organism, but it is equally true that the similarity attained never amounts to identity, either in form or in structure. There is always a certain amount of deviation, not only from the precise characters of a single parent, but when, as in most animals and many plants, the sexes are lodged in distinct individuals, from an exact mean between the two parents. And, indeed, on general principles, this slight deviation seems as intelligible as the general similarity, if we reflect how complex the coöperating "bundles of forces" are, and how improbable it is that, in any case, their true resultant shall coincide with any mean between the more obvious characters of the two parents. Whatever be its cause, however, the coexistence of this tendency to minor variation with the tendency to general similarity is of vast importance in its bearing on the question of the origin of species.

As a general rule, the extent to which an offspring differs from its parent is slight enough; but, occasionally, the amount of difference is much more strongly marked, and then the divergent offspring receives the name of a Variety. Multitudes, of what there is every reason to believe are such varieties, are known, but the origin of very few has been accurately recorded, and of these we will select two as more especially illustrative of the main features of variation. The first of them is that of the "Ancon," or

"Otter" sheep, of which a careful account is given by Colonel David Humphreys, F.R.S., in a letter to Sir Joseph Banks, published in the Philosophical Transactions for 1813. It appears that one Seth Wright, the proprietor of a farm on the banks of the Charles River, in Massachusetts, possessed a flock of fifteen ewes and a ram of the ordinary kind. In the year 1791 one of the ewes presented her owner with a male lamb, differing, for no assignable reason, from its parents by a proportionally long body and short bandy legs, whence it was unable to emulate its relatives in those sportive leaps over the neighbors' fences, in which they were in the habit of indulging, much to the good farmer's vexation.

The second case is that detailed by a no less unexceptionable authority than Réaumur, in his *Art de faire éclore les Poulets*. A Maltese couple, named Kelleia, whose hands and feet were constructed upon the ordinary human model, had born to them a son, Gratio, who possessed six perfectly movable fingers on each hand and six toes, not quite so well formed, on each foot. No cause could be assigned for the appearance of this unusual variety of the human species.

Two circumstances are well worthy of remark in both these cases. In each, the variety appears to have arisen in full force, and, as it were, *per saltum*[1]; a wide and definite difference appearing, at once, between the Ancon ram and the ordinary sheep; between the six-fingered and six-toed Gratio Kelleia and ordinary men. In neither case is it possible to point out any obvious reason for the appearance of the variety. Doubtless there were determining causes for these, as for all other phenomena; but they do not appear, and we can be tolerably certain that what are ordinarily understood as changes in physical conditions, as in climate, in food, or the like, did not take place and had nothing to do with the matter. It was no case of what is commonly called adaptation to circumstances; but, to use a conveniently erroneous phrase, the variations arose spontaneously. The fruitless search after final causes leads their pursuers a long way; but

[1] At a jump. — *Editors.*

even those hardy teleologists, who are ready to break through all the laws of physics in chase of their favorite will-o'-the-wisp, may be puzzled to discover what purpose could be attained by the stunted legs of Seth Wright's ram or the hexadactyl members of Gratio Kelleia.

Varieties then arise we know not why; and it is more than probable that the majority of varieties have arisen in the spontaneous manner, though we are, of course, far from denying that they may be traced, in some cases, to distinct external influences which are assuredly competent to alter the character of the tegumentary covering, to change color, to increase or diminish the size of muscles, to modify constitution, and, among plants, to give rise to the metamorphosis of stamens into petals, and so forth. But however they may have arisen, what especially interests us at present is to remark that, once in existence, varieties obey the fundamental law of reproduction that like tends to produce like, and their offspring exemplify it by tending to exhibit the same deviation from the parental stock as themselves. Indeed, there seems to be, in many instances, a prepotent influence about a newly arisen variety which gives it what one may call an unfair advantage over the normal descendants from the same stock. This is strikingly exemplified by the case of Gratio Kelleia, who married a woman with the ordinary pentadactyl extremities, and had by her four children, Salvator, George, André, and Marie. Of these children Salvator, the eldest boy, had six fingers and six toes, like his father; the second and third, also boys, had five fingers and five toes, like their mother, though the hands and feet of George were slightly deformed; the last, a girl, had five fingers and five toes, but the thumbs were slightly deformed. The variety thus reproduced itself purely in the eldest, while the normal type reproduced itself purely in the third, and almost purely in the second and last: so that it would seem, at first, as if the normal type were more powerful than the variety. But all these children grew up and intermarried with normal wives and husbands, and then, note what took place: Salvator had four children, three of whom exhibited the hexadactyl members of

their grandfather and father, while the youngest had the pentadactyl limbs of the mother and grandmother; so that here, notwithstanding a double pentadactyl dilution of the blood, the hexadactyl variety had the best of it. The same prepotency of the variety was still more markedly exemplified in the progeny of two of the other children, Marie and George. Marie (whose thumbs only were deformed) gave birth to a boy with six toes, and three other normally formed children; but George, who was not quite so pure a pentadactyl, begot, first, two girls, each of whom had six fingers and toes; then a girl with six fingers on each hand and six toes on the right foot, but only five toes on the left; and lastly, a boy with only five fingers and toes. In these instances, therefore, the variety, as it were, leaped over one generation to reproduce itself in full force in the next. Finally, the purely pentadactyl André was the father of many children, not one of whom departed from the normal parental type.

If a variation which approaches the nature of a monstrosity can strive thus forcibly to reproduce itself, it is not wonderful that less aberrant modifications should tend to be preserved even more strongly; and the history of the Ancon sheep is, in this respect, particularly instructive. With the "cuteness" characteristic of their nation, the neighbors of the Massachusetts farmer imagined it would be an excellent thing if all his sheep were imbued with the stay-at-home tendencies enforced by nature upon the newly arrived ram; and they advised Wright to kill the old patriarch of his fold, and install the Ancon ram in his place. The result justified their sagacious anticipations, and coincided very nearly with what occurred to the progeny of Gratio Kelleia. The young lambs were almost always either pure Ancons or pure ordinary sheep. But when sufficient Ancon sheep were obtained to interbreed with one another, it was found that the offspring was always pure Ancon. Colonel Humphreys, in fact, states that he was acquainted with only "one questionable case of a contrary nature." Here, then, is a remarkable and well-established instance, not only of a very distinct race being established *per saltum*, but of that race breeding "true" at once,

and showing no mixed forms, even when crossed with another breed.

By taking care to select Ancons of both sexes for breeding from, it thus became easy to establish an extremely well-marked race, so peculiar that even when herded with other sheep, it was noted that the Ancons kept together. And there is every reason to believe that the existence of this breed might have been indefinitely protracted; but the introduction of the Merino sheep, which were not only very superior to the Ancons in wool and meat, but quite as quiet and orderly, led to the complete neglect of the new breed, so that, in 1813, Colonel Humphreys found it difficult to obtain the specimen whose skeleton was presented to Sir Joseph Banks. We believe that for many years no remnant of it has existed in the United States.

Gratio Kelleia was not the progenitor of a race of six-fingered men, as Seth Wright's ram became a nation of Ancon sheep, though the tendency of the variety to perpetuate itself appears to have been fully as strong in the one case as in the other. And the reason of the difference is not far to seek. Seth Wright took care not to weaken the Ancon blood by matching his Ancon ewes with any but males of the same variety, while Gratio Kelleia's sons were too far removed from the patriarchal times to intermarry with their sisters; and his grandchildren seem not to have been attracted by their six-fingered cousins. In other words, in the one example a race was produced, because, for several generations, care was taken to *select* both parents of the breeding stock from animals exhibiting a tendency to vary in the same direction; while in the other no race was evolved, because no such selection was exercised. A race is a propagated variety, and as, by the laws of reproduction, offspring tend to assume the parental forms, they will be more likely to propagate a variation exhibited by both parents than that possessed by only one.

There is no organ of the body of an animal which may not, and does not, occasionally, vary more or less from the normal type; and there is no variation which may not be transmitted, and

which, if selectively transmitted, may not become the foundation of a race. This great truth, sometimes forgotten by philosophers, has long been familiar to practical agriculturists and breeders; and upon it rest all the methods of improving the breeds of domestic animals, which for the last century have been followed with so much success in England. Color, form, size, texture of hair or wool, proportions of various parts, strength or weakness of constitution, tendency to fatten or to remain lean, to give much or little milk, speed, strength, temper, intelligence, special instincts; there is not one of these characters whose transmission is not an everyday occurrence within the experience of cattle breeders, stock farmers, horse dealers, and dog and poultry fanciers. Nay, it is only the other day that an eminent physiologist, Dr. Brown Séquard, communicated to the Royal Society his discovery that epilepsy, artificially produced in guinea pigs, by a means which he has discovered, is transmitted to their offspring.

But a race, once produced, is no more a fixed and immutable entity than the stock whence it sprang; variations arise among its members, and as these variations are transmitted like any others, new races may be developed out of the preëxisting one *ad infinitum*, or, at least, within any limit at present determined. Given sufficient time and sufficiently careful selection, and the multitude of races which may arise from a common stock is as astonishing as are the extreme structural differences which they may present. A remarkable example of this is to be found in the rock pigeon, which Mr. Darwin has, in our opinion, satisfactorily demonstrated to be the progenitor of all our domestic pigeons, of which there are certainly more than a hundred well-marked races. The most noteworthy of these races are the four great stocks known to the "fancy" as tumblers, pouters, carriers, and fantails — birds which not only differ most singularly in size, color, and habits, but in the form of the beak and of the skull; in the proportions of the beak to the skull; in the number of tail-feathers; in the absolute and relative size of the feet; in the presence or absence of the uropygial gland; in the number of

vertebræ in the back; in short, in precisely those characters in which the genera and species of birds differ from one another.

And it is most remarkable and instructive to observe that none of these races can be shown to have been originated by the action of changes in what are commonly called external circumstances, upon the wild rock pigeon. On the contrary, from time immemorial, pigeon fanciers have had essentially similar methods of treating their pets, which have been housed, fed, protected, and cared for in much the same way in all pigeonries. In fact, there is no case better adapted than that of the pigeons to refute the doctrine which one sees put forth on high authority, that "no other characters than those founded on the development of bone for the attachment of muscles" are capable of variation. In precise contradiction of this hasty assertion, Mr. Darwin's researches prove that the skeleton of the wings in domestic pigeons has hardly varied at all from that of the wild type; while, on the other hand, it is in exactly those respects, such as the relative length of the beak and skull, the number of the vertebræ, and the number of the tail-feathers, in which muscular exertion can have no important influence, that the utmost amount of variation has taken place.

We have said that the following out of the properties exhibited by physiological species would lead us into difficulties, and at this point they begin to be obvious; for if, as a result of spontaneous variation and of selective breeding, the progeny of a common stock may become separated into groups distinguished from one another by constant, not sexual, morphological characters, it is clear that the physiological definition of species is likely to clash with the morphological definition. No one would hesitate to describe the pouter and the tumbler as distinct species, if they were found fossil, or if their skins and skeletons were imported, as those of exotic wild birds commonly are; and, without doubt, if considered alone, they are good and distinct morphological species. On the other hand, they are not physi-

ological species, for they are descended from a common stock, the rock pigeon.

Under these circumstances, as it is admitted on all sides that races occur in nature, how are we to know whether any apparently distinct animals are really of different physiological species, or not, seeing that the amount of morphological difference is no safe guide? Is there any test of a physiological species? The usual answer of physiologists is in the affirmative. It is said that such a test is to be found in the phenomena of hybridization — in the results of crossing races, as compared with the results of crossing species.

So far as the evidence goes at present, individuals, of what are certainly known to be mere races produced by selection, however distinct they may appear to be, not only breed freely together, but the offspring of such crossed races are also perfectly fertile with one another. Thus, the spaniel and the greyhound, the dray horse and the Arab, the pouter and the tumbler, breed together with perfect freedom, and their mongrels, if matched with other mongrels of the same kind, are equally fertile.

On the other hand, there can be no doubt that the individuals of many natural species are either absolutely infertile, if crossed with individuals of other species, or, if they give rise to hybrid offspring, the hybrids so produced are infertile when paired together. The horse and the ass, for instance, if so crossed, give rise to the mule, and there is no certain evidence of offspring ever having been produced by a male and female mule. The unions of the rock pigeon and the ring pigeon appear to be equally barren of result. Here, then, says the physiologist, we have a means of distinguishing any two true species from any two varieties. If a male and a female, selected from each group, produce offspring, and that offspring is fertile with others produced in the same way, the groups are races and not species. If, on the other hand, no result ensues, or if the offspring are infertile with others produced in the same way, they are true physiological species. The test would be an admirable one, if, in the first place, it were always practicable to apply it, and if, in the second, it always

yielded results susceptible of a definite interpretation. Unfortunately, in the great majority of cases, this touchstone for species is wholly inapplicable.

The constitution of many wild animals is so altered by confinement that they will not even breed with their own females, so that the negative results obtained from crosses are of no value, and the antipathy of wild animals of different species for one another, or even of wild and tame members of the same species, is ordinarily so great that it is hopeless to look for such unions in nature. The hermaphrodism of most plants, the difficulty in the way of ensuring the absence of their own, or the proper working of other pollen, are obstacles of no less magnitude in applying the test to them. And in both animals and plants is superadded the further difficulty, that experiments must be continued over a long time for the purpose of ascertaining the fertility of the mongrel or hybrid progeny, as well as of the first crosses from which they spring.

Not only do these great practical difficulties lie in the way of applying the hybridization test, but even when this oracle can be questioned, its replies are sometimes as doubtful as those of Delphi. For example, cases are cited by Mr. Darwin, of plants which are more fertile with the pollen of another species than with their own; and there are others, such as certain *fuci*, whose male element will fertilize the ovule of a plant of distinct species, while the males of the latter species are ineffective with the females of the first. So that, in the last-named instance, a physiologist who should cross the two species in one way, would decide that they were true species; while another, who should cross them in the reverse way, would, with equal justice, according to the rule, pronounce them to be mere races. Several plants, which there is great reason to believe are mere varieties, are almost sterile when crossed; while both animals and plants, which have always been regarded by naturalists as of distinct species, turn out, when the test is applied, to be perfectly fertile. Again, the sterility or fertility of crosses seems to bear no relation to the structural resemblances or differences of the members of any two groups.

Mr. Darwin has discussed this question with singular ability and circumspection, and his conclusions are summed up as follows, at page 276 of his work: —

"First crosses between forms sufficiently distinct to be ranked as species, and their hybrids, are very generally, but not universally, sterile. The sterility is of all degrees, and is often so slight that the two most careful experimentalists who have ever lived have come to diametrically opposite conclusions in ranking forms by this test. The sterility is innately variable in individuals of the same species, and is eminently susceptible of favorable and unfavorable conditions. The degree of sterility does not strictly follow systematic affinity, but is governed by several curious and complex laws. It is generally different, and sometimes widely different, in reciprocal crosses between the same two species. It is not always equal in degree in a first cross, and in the hybrid produced from this cross.

"In the same manner as in grafting trees, the capacity of one species or variety to take on another is incidental on generally unknown differences in their vegetative systems; so in crossing, the greater or less facility of one species to unite with another is incidental on unknown differences in their reproductive systems. There is no more reason to think that species have been specially endowed with various degrees of sterility to prevent them crossing and breeding in nature, than to think that trees have been specially endowed with various and somewhat analogous degrees of difficulty in being grafted together, in order to prevent them becoming inarched in our forests.

"The sterility of first crosses between pure species, which have their reproductive systems perfect, seems to depend on several circumstances; in some cases largely on the early death of the embryo. The sterility of hybrids which have their reproductive systems imperfect, and which have had this system and their whole organization disturbed by being compounded of two distinct species, seems closely allied to that sterility which so frequently affects pure species when their natural conditions of life have been disturbed. This view is supported by a parallelism

of another kind; namely, that the crossing of forms only slightly different is favorable to the vigor and fertility of the offspring; and that slight changes in the conditions of life are apparently favorable to the vigor and fertility of all organic beings. It is not surprising that the degree of difficulty in uniting two species, and the degree of sterility of their hybrid offspring should generally correspond, though due to distinct causes; for both depend on the amount of difference of some kind between the species which are crossed. Nor is it surprising that the facility of effecting a first cross, the fertility of hybrids produced from it, and the capacity of being grafted together — though this latter capacity evidently depends on widely different circumstances — should all run to a certain extent parallel with the systematic affinity of the forms which are subjected to experiment; for systematic affinity attempts to express all kinds of resemblance between all species.

"First crosses between forms known to be varieties, or sufficiently alike to be considered as varieties, and their mongrel offspring, are very generally, but not quite universally, fertile. Nor is this nearly general and perfect fertility surprising, when we remember how liable we are to argue in a circle with respect to varieties in a state of nature; and when we remember that the greater number of varieties have been produced under domestication by the selection of mere external differences, and not of differences in the reproductive system. In all other respects, excluding fertility, there is a close general resemblance between hybrids and mongrels."

We fully agree with the general tenor of this weighty passage, but forcible as are these arguments, and little as the value of fertility or infertility as a test of species may be, it must not be forgotten that the really important fact, so far as the inquiry into the origin of species goes, is, that there are such things in nature as groups of animals and of plants, whose members are incapable of fertile union with those of other groups; and that there are such things as hybrids, which are absolutely sterile when crossed with other hybrids. For if such phenomena as these were exhibited by only two of those assemblages of living objects,

to which the name of species (whether it be used in its physiological or in its morphological sense) is given, it would have to be accounted for by any theory of the origin of species, and every theory which could not account for it would be, so far, imperfect.

Up to this point we have been dealing with matters of fact, and the statements which we have laid before the reader would, to the best of our knowledge, be admitted to contain a fair exposition of what is at present known respecting the essential properties of species, by all who have studied the question. And whatever may be his theoretical views, no naturalist will probably be disposed to demur to the following summary of that exposition: —

Living beings, whether animals or plants, are divisible into multitudes of distinctly definable kinds, which are morphological species. They are also divisible into groups of individuals, which breed freely together, tending to reproduce their like, and are physiological species. Normally, resembling their parents, the offspring of members of these species are still liable to vary, and the variation may be perpetuated by selection, as a race, which race, in many cases, presents all the characteristics of a morphological species. But it is not as yet proved that a race ever exhibits, when crossed with another race of the same species, those phenomena of hybridization which are exhibited by many species when crossed with other species. On the other hand, not only is it not proved that all species give rise to hybrids infertile *inter se*, but there is much reason to believe that, in crossing, species exhibit every gradation from perfect sterility to perfect fertility.

Such are the most essential characteristics of species. Even were man not one of them — a member of the same system and subject to the same laws — the question of their origin, their causal connection, that is, with the other phenomena of the universe, must have attracted his attention, as soon as his intelligence had raised itself above the level of his daily wants.

Indeed, history relates that such was the case, and has embalmed for us the speculations upon the origin of living beings,

which were among the earliest products of the dawning intellectual activity of man. In those early days positive knowledge was not to be had, but the craving after it needed, at all hazards, to be satisfied, and according to the country, or the turn of thought of the speculator, the suggestion that all living things arose from the mud of the Nile, from a primeval egg, or from some more anthropomorphic agency, afforded a sufficient resting place for his curiosity. The myths of Paganism are as dead as Osiris or Zeus, and the man who should revive them, in opposition to the knowledge of our time, would be justly laughed to scorn; but the coeval imaginations current among the rude inhabitants of Palestine, recorded by writers whose very name and age are admitted by every scholar to be unknown, have unfortunately not yet shared their fate, but, even at this day, are regarded by nine tenths of the civilized world as the authoritative standard of fact and the criterion of the justice of scientific conclusions, in all that relates to the origin of things, and, among them, of species. In this nineteenth century, as at the dawn of modern physical science, the cosmogony of the semibarbarous Hebrew is the incubus of the philosopher and the opprobrium of the orthodox. Who shall number the patient and earnest seekers after truth, from the days of Galileo until now, whose lives have been embittered and their good name blasted by the mistaken zeal of bibliolaters? Who shall count the host of weaker men whose sense of truth has been destroyed in the effort to harmonize impossibilities — whose life has been wasted in the attempt to force the generous new wine of science into the old bottles of Judaism, compelled by the outcry of the same strong party?

It is true that if philosophers have suffered, their cause has been amply avenged. Extinguished theologians lie about the cradle of every science as the strangled snakes beside that of Hercules; and history records that whenever science and orthodoxy have been fairly opposed, the latter has been forced to retire from the lists, bleeding and crushed, if not annihilated; scotched, if not slain. But orthodoxy is the Bourbon of the world of

thought. It learns not, neither can it forget; and though at present bewildered and afraid to move, it is as willing as ever to insist that the first chapter of Genesis contains the beginning and the end of sound science, and to visit with such petty thunderbolts as its half-paralyzed hands can hurl, those who refuse to degrade nature to the level of primitive Judaism.

Philosophers, on the other hand, have no such aggressive tendencies. With eyes fixed on the noble goal to which *per aspera et ardua*[1] they tend, they may, now and then, be stirred to momentary wrath by the unnecessary obstacles with which the ignorant or the malicious encumber, if they cannot bar, the difficult path; but why should their souls be deeply vexed? The majesty of Fact is on their side, and the elemental forms of nature are working for them. Not a star comes to the meridian at its calculated time but testifies to the justice of their methods — their beliefs are "one with the falling rain and with the growing corn." By doubt they are established, and open inquiry is their bosom friend. Such men have no fear of traditions, however venerable, and no respect for them when they become mischievous and obstructive; but they have better than mere antiquarian business in hand, and if dogmas, which ought to be fossil but are not, are not forced upon their notice, they are too happy to treat them as nonexistent.

The hypotheses respecting the origin of species which profess to stand upon a scientific basis, and, as such, alone demand serious attention, are of two kinds. The one, the "special creation" hypothesis, presumes every species to have originated from one or more stocks, these not being the result of the modification of any other form of living matter — or arising by natural agencies — but being produced, as such, by a supernatural creative act.

The other, the so-called "transmutation" hypothesis, considers that all existing species are the result of the modification of preëxisting species and those of their predecessors, by agencies

[1] By rough and steep paths. — *Editors.*

similar to those which at the present day produce varieties and races, and therefore in an altogether natural way; and it is a probable, though not a necessary consequence of this hypothesis, that all living beings have arisen from a single stock. With respect to the origin of this primitive stock or stocks, the doctrine of the origin of species is obviously not necessarily concerned. The transmutation hypothesis, for example, is perfectly consistent either with the conception of a special creation of the primitive germ, or with the supposition of its having arisen, as a modification of inorganic matter, by natural causes.

The doctrine of special creation owes its existence very largely to the supposed necessity of making science accord with the Hebrew cosmogony; but it is curious to observe that, as the doctrine is at present maintained by men of science, it is as hopelessly inconsistent with the Hebrew view as any other hypothesis.

If there be any result which has come more clearly out of geological investigation than another, it is, that the vast series of extinct animals and plants is not divisible, as it was once supposed to be, into distinct groups, separated by sharply marked boundaries. There are no great gulfs between epochs and formations — no successive periods marked by the appearance of plants, of water animals, and of land animals, *en masse*. Every year adds to the list of links between what the older geologists supposed to be widely separated epochs: witness the crags linking the Drift with the older Tertiaries; the Maestricht beds linking the Tertiaries with the Chalk; the St. Cassian beds exhibiting an abundant fauna of mixed Mesozoic and Paleozoic types, in rocks of an epoch once supposed to be eminently poor in life; witness, lastly, the incessant disputes as to whether a given stratum shall be reckoned Devonian or Carboniferous, Silurian or Devonian, Cambrian or Silurian.

This truth is further illustrated in a most interesting manner by the impartial and highly competent testimony of M. Pictet, from whose calculations of what percentage of the genera of animals existing in any formation lived during the preceding formation, it results that in no case is the proportion less than

one third, or 33 per cent. It is the Triassic formation, or the commencement of the Mesozoic epoch, which has received this smallest inheritance from preceding ages. The other formations not uncommonly exhibit 60, 80, or even 94 per cent of genera in common with those whose remains are embedded in their predecessor. Not only is this true, but the subdivisions of each formation exhibit new species characteristic of, and found only in, them; and in many cases, as in the Lias, for example, the separate beds of these subdivisions are distinguished by well-marked and peculiar forms of life. A section a hundred feet thick will exhibit at different heights a dozen species of ammonite, none of which passes beyond its particular zone of limestone or clay into the zone below it or into that above it; so that those who adopt the doctrine of special creation must be prepared to admit, that at intervals of time, corresponding with the thickness of these beds, the Creator thought fit to interfere with the natural course of events for the purpose of making a new ammonite. It is not easy to transplant one's self into the frame of mind of those who can accept such a conclusion as this, on any evidence short of absolute demonstration; and it is difficult to see what is to be gained by so doing, since, as we have said, it is obvious that such a view of the origin of living beings is utterly opposed to the Hebrew cosmogony. Deserving no aid from the powerful arm of bibliolatry, then, does the received form of the hypothesis of special creation derive any support from science or sound logic? Assuredly not much. The arguments brought forward in its favor all take one form: If species were not supernaturally created, we cannot understand the facts x, or y, or z; we cannot understand the structure of animals or plants, unless we suppose they were contrived for special ends; we cannot understand the structure of the eye, except by supposing it to have been made to see with; we cannot understand instincts, unless we suppose animals to have been miraculously endowed with them.

As a question of dialectics, it must be admitted that this sort of reasoning is not very formidable to those who are not to be frightened by consequences. It is an *argumentum ad ignoran-*

tiam — take this explanation or be ignorant. But suppose we prefer to admit our ignorance rather than adopt a hypothesis at variance with all the teachings of nature? Or suppose for a moment we admit the explanation, and then seriously ask ourselves how much the wiser are we? what does the explanation explain? Is it any more than a grandiloquent way of announcing the fact that we really know nothing about the matter? A phenomenon is explained when it is shown to be a case of some general law of nature; but the supernatural interposition of the Creator can by the nature of the case exemplify no law, and if species have really arisen in this way, it is absurd to attempt to discuss their origin.

Or, lastly, let us ask ourselves whether any amount of evidence which the nature of our faculties permits us to attain, can justify us in asserting that any phenomenon is out of the reach of natural causation. To this end it is obviously necessary that we should know all the consequences to which all possible combinations, continued through unlimited time, can give rise. If we knew these, and found none competent to originate species, we should have good ground for denying their origin by natural causation. Till we know them, any hypothesis is better than one which involves us in such miserable presumption.

But the hypothesis of special creation is not only a mere specious mask for our ignorance; its existence in Biology marks the youth and imperfection of the science. For what is the history of every science but the history of the elimination of the notion of creative, or other interferences, with the natural order of the phenomena which are the subject matter of that science? When Astronomy was young, "the morning stars sang together for joy," and the planets were guided in their courses by celestial hands. Now, the harmony of the stars has resolved itself into gravitation according to the inverse squares of the distances, and the orbits of the planets are deducible from the laws of the forces which allow a schoolboy's stone to break a window. The lightning was the angel of the Lord; but it has pleased Providence, in these modern times, that science should make it the humble

messenger of man, and we know that every flash that shimmers about the horizon on a summer's evening is determined by ascertainable conditions, and that its direction and brightness might, if our knowledge of these were great enough, have been calculated.

The solvency of great mercantile companies rests on the validity of the laws which have been ascertained to govern the seeming irregularity of that human life which the moralist bewails as the most uncertain of things; plague, pestilence, and famine are admitted, by all but fools, to be the natural result of causes for the most part fully within human control, and not the unavoidable tortures inflicted by wrathful Omnipotence upon his helpless handiwork.

Harmonious order governing eternally continuous progress, the web and woof of matter and force interweaving by slow degrees, without a broken thread, that veil which lies between us and the Infinite — that universe which alone we know, or can know — such is the picture which science draws of the world, and in proportion as any part of that picture is in unison with the rest, so may we feel sure that it is rightly painted. Shall Biology alone remain out of harmony with her sister sciences?

Such arguments against the hypothesis of the direct creation of species as these are plainly enough deducible from general considerations; but there are, in addition, phenomena exhibited by species themselves, and yet not so much a part of their very essence as to have required earlier mention, which are in the highest degree perplexing, if we adopt the popularly accepted hypothesis. Such are the facts of distribution in space and in time; the singular phenomena brought to light by the study of development; the structural relations of species upon which our systems of classification are founded; the great doctrines of philosophical anatomy, such as that of homology, or of the community of structural plan exhibited by large groups of species differing very widely in their habits and functions.

The species of animals which inhabit the sea on opposite sides

of the isthmus of Panama are wholly distinct;[1] the animals and plants which inhabit islands are commonly distinct from those of the neighboring mainlands, and yet have a similarity of aspect. The mammals of the latest Tertiary epoch in the Old and New Worlds belong to the same genera, or family groups, as those which now inhabit the same great geographical area. The crocodilian reptiles which existed in the earliest Secondary epoch were similar in general structure to those now living, but exhibit slight differences in their vertebræ, nasal passages, and one or two other points. The guinea pig has teeth which are shed before it is born, and hence can never subserve the masticatory purpose for which they seem contrived, and, in like manner, the female dugong has tusks which never cut the gum. All the members of the same great group run through similar conditions in their development, and all their parts, in the adult state, are arranged according to the same plan. Man is more like a gorilla than a gorilla is like a lemur. Such are a few, taken at random, among the multitudes of similar facts which modern research has established; but when the student seeks for an explanation of them from the supporters of the received hypothesis of the origin of species, the reply he receives is, in substance, of oriental simplicity and brevity — "Mashallah! it so pleases God!" There are different species on opposite sides of the isthmus of Panama, because they were created different on the two sides. The Pliocene mammals are like the existing ones, because such was the plan of creation; and we find rudimental organs and similarity of plan, because it has pleased the Creator to set before himself a "divine exemplar or archetype," and to copy it in his works; and somewhat ill, those who hold this view imply, in some of them. That such verbal hocus-pocus should be received as science will one day be regarded as evidence of the low state of intelligence in the nineteenth century, just as we amuse ourselves with the phraseology about Nature's abhorrence of a vacuum, wherewith Torricelli's compatriots were satisfied to explain the

[1] Recent investigations tend to show that this statement is not strictly accurate (1870).

rise of water in a pump. And be it recollected that this sort of satisfaction works not only negative, but positive ill, by discouraging inquiry, and so depriving man of the usufruct of one of the most fertile fields of his great patrimony, Nature.

The objections to the doctrine of origin of species by special creation which have been detailed must have occurred with more or less force to the mind of every one who has seriously and independently considered the subject. It is therefore no wonder that, from time to time, this hypothesis should have been met by counter hypotheses, all as well, and some better, founded than itself; and it is curious to remark that the inventors of the opposing views seem to have been led into them as much by their knowledge of geology as by their acquaintance with biology. In fact, when the mind has once admitted the conception of the gradual production of the present physical state of our globe, by natural causes operating through long ages of time, it will be little disposed to allow that living beings have made their appearance in another way, and the speculations of De Maillet and his successors are the natural complement of Scilla's demonstration of the true nature of fossils.

A contemporary of Newton and of Leibnitz, sharing, therefore, in the intellectual activity of the remarkable age which witnessed the birth of modern physical science, Benoît De Maillet spent a long life as a consular agent of the French government in various Mediterranean ports. For sixteen years, in fact, he held the office of Consul-General in Egypt, and the wonderful phenomena offered by the valley of the Nile appear to have strongly impressed his mind, to have directed his attention to all facts of a similar order which came within his observation, and to have led him to speculate on the origin of the present condition of our globe and of its inhabitants. But, with all his ardor for science, De Maillet seems to have hesitated to publish views which, notwithstanding the ingenious attempts to reconcile them with the Hebrew hypothesis contained in the preface to *Telliamed* (and which we recommend for Mr. MacCausland's perusal), were hardly likely to be received with favor by his contemporaries.

But a short time had elapsed since more than one of the great anatomists and physicists of the Italian school had paid dearly for their endeavors to dissipate some of the prevalent errors; and their illustrious pupil, Harvey, the founder of modern physiology, had not fared so well, in a country less oppressed by the benumbing influences of theology, as to tempt any man to follow his example. Probably not uninfluenced by these considerations, his Catholic majesty's Consul-General for Egypt kept his theories to himself throughout a long life, for *Telliamed*, the only scientific work which is known to have proceeded from his pen, was not printed till 1735, when its author had reached the ripe age of seventy-nine; and though De Maillet lived three years longer, his book was not given to the world before 1748. Even then it was anonymous to those who were not in the secret of the anagrammatic character of its title, and the preface and dedication are so worded as, in case of necessity, to give the printer a fair chance of falling back on the excuse that the work was intended for a mere *jeu d'esprit*.[1]

The speculations of the supposititious Indian sage, though quite as sound as those of many a "Mosaic Geology" which sells exceedingly well, have no great value if we consider them by the light of modern science. The waters are supposed to have originally covered the whole globe; to have deposited the rocky masses which compose its mountains by processes comparable to those which are now forming mud, sand, and shingle; and then to have gradually lowered their level, leaving the spoils of the animal and vegetable inhabitants embedded in the strata. As the dry land appeared, certain of the aquatic animals are supposed to have taken to it, and to have become gradually adapted to terrestrial and aërial modes of existence. But if we regard the general tenor and style of the reasoning in relation to the state of knowledge of the day, two circumstances appear very well worthy of remark. The first, that De Maillet had a notion of the modifiability of living forms (though without any precise information on the subject), and how such modifia-

[1] Play of fancy. — *Editors.*

bility might account for the origin of species; the second, that he very clearly apprehended the great modern geological doctrine, so strongly insisted upon by Hutton, and so ably and comprehensively expounded by Lyell, that we must look to existing causes for the explanation of past geological events. Indeed the following passage of the preface in which De Maillet is supposed to speak of the Indian philosopher Telliamed, his *alter ego*,[1] might have been written by the most philosophical uniformitarian of the present day.

"Ce qu'il y a d'étonnant, est que pour arriver à ces connoissances il semble avoir perverti l'ordre naturel, puisqu'au lieu de s'attacher d'abord à rechercher l'origine de notre globe il a commencé par travailler à s'instruire de la nature. Mais à l'entendre, ce renversement de l'ordre a été pour lui l'effet d'un génie favorable qui l'a conduit pas à pas et comme par la main aux découvertes les plus sublimes. C'est en décomposant la substance de ce globe par une anatomie exacte de toutes ses parties qu'il a premièrement appris de quelles matières il était composé et quels arrangemens ces mêmes matières observaient entre elles. Ces lumières jointes à l'esprit de comparaison toujours nécessaire à quiconque entreprend de percer les voiles dont la nature aime à se cacher, ont servi de guide à notre philosophe pour parvenir à des connoissances plus intéressantes. Par la matière et l'arrangement de ces compositions il prétend avoir reconnu quelle est la véritable origine de ce globe que nous habitons, comment et par qui il a été formé." — (Pp. xix, xx.)[2]

[1] Other self. — *Editors.*

[2] What is specially remarkable is that to reach these conclusions he seems to have perverted the natural order of reasoning; for instead of undertaking from the beginning to investigate the origin of our world, he has begun by studying nature. But, if we accept his word, this reversal of the natural order has been for him like a friendly spirit, which has led him by the hand, step by step, to the most sublime discoveries. It is by an analysis of the actual substance of this globe, by means of an exact classification of all its parts, that he has, in the first place, learned of what materials it was composed and what relations these materials bore to each other. This knowledge, combined with the spirit of comparison always necessary to whoever

But De Maillet was before his age, and as could hardly fail to happen to one who speculated on a zoölogical and botanical question before Linnæus, and on a physiological problem before Haller, he fell into great errors here and there; and hence, perhaps, the general neglect of his work. Robinet's speculations are rather behind than in advance of those of De Maillet, and though Linnæus may have played with the hypothesis of transmutation, it obtained no serious support until Lamarck adopted it, and advocated it with great ability in his *Philosophie Zoologique*.

Impelled towards the hypothesis of the transmutation of species, partly by his general cosmological and geological views; partly by the conception of a graduated, though irregularly branching scale of being, which had arisen out of his profound study of plants and of the lower forms of animal life, Lamarck, whose general line of thought often closely resembles that of De Maillet, made a great advance upon the crude and merely speculative manner in which that writer deals with the question of the origin of living beings, by endeavoring to find physical causes competent to effect that change of one species into another which De Maillet had only supposed to occur. And Lamarck conceived that he had found in nature such causes, amply sufficient for the purpose in view. It is a physiological fact, he says, that organs are increased in size by action, atrophied by inaction; it is another physiological fact that modifications produced are transmissible to offspring. Change the actions of an animal, therefore, and you will change its structure, by increasing the development of the parts newly brought into use and by the diminution of those less used; but by altering the circumstances which surround it you will alter its actions, and hence, in the long run, change of circumstance must produce change of

endeavors to pierce the veils behind which Nature loves to conceal herself, has served our philosopher as a means of coming at more wonderful truths. Through the materials and the arrangement of these constituents he believes he has discovered the real origin of this world which we live in, how and by whom it was made. — *Editors.*

organization. All the species of animals, therefore, are in Lamarck's view the result of the indirect action of changes of circumstance upon those primitive germs which he considered to have originally arisen, by spontaneous generation, within the waters of the globe. It is curious, however, that Lamarck should insist so strongly [1] as he has done, that circumstances never in any degree directly modify the form or the organization of animals, but only operate by changing their wants, and consequently their actions; for he thereby brings upon himself the obvious question, how, then, do plants, which cannot be said to have wants or actions, become modified? To this he replies, that they are modified by the changes in their nutritive processes, which are effected by changing circumstances; and it does not seem to have occurred to him that such changes might be as well supposed to take place among animals.

When we have said that Lamarck felt that mere speculation was not the way to arrive at the origin of species, but that it was necessary, in order to the establishment of any sound theory on the subject, to discover, by observation or otherwise, some *vera causa*, competent to give rise to them; that he affirmed the true order of classification to coincide with the order of their development one from another; that he insisted on the necessity of allowing sufficient time, very strongly; and that all the varieties of instinct and reason were traced back by him to the same cause as that which has given rise to species, we have enumerated his chief contributions to the advance of the question. On the other hand, from his ignorance of any power in nature competent to modify the structure of animals, except the development of parts, or atrophy of them, in consequence of a change of needs, Lamarck was led to attach infinitely greater weight than it deserves to this agency, and the absurdities into which he was led have met with deserved condemnation. Of the struggle for existence, on which as we shall see Mr. Darwin lays such great stress, he had no conception; indeed, he doubts whether there really are such things as extinct species, unless they be such

[1] See *Philosophie Zoologique*, vol. i, p. 222, *et seq.*

large animals as may have met their death at the hands of man; and so little does he dream of there being any other destructive causes at work, that, in discussing the possible existence of fossil shells, he asks, "Pourquoi d'ailleurs seroient-ils perdues dès que l'homme n'a pu opérer leur destruction?"[1] Of the influence of selection Lamarck has as little notion, and he makes no use of the wonderful phenomena which are exhibited by domesticated animals, and illustrate its powers. The vast influence of Cuvier was employed against the Lamarckian views, and as the untenability of some of his conclusions was easily shown, his doctrines sank under the opprobrium of scientific as well as of theological heterodoxy. Nor have the efforts made of late years to revive them tended to reëstablish their credit in the minds of sound thinkers acquainted with the facts of the case; indeed it may be doubted whether Lamarck has not suffered more from his friends than from his foes.

Two years ago, in fact, though we venture to question if even the strongest supporters of the special creation hypothesis had not, now and then, an uneasy consciousness that all was not right, their position seemed more impregnable than ever, if not by its own inherent strength, at any rate by the obvious failure of all the attempts which had been made to carry it. On the other hand, however much the few, who thought deeply on the question of species, might be repelled by the generally received dogmas, they saw no way of escaping from them, save by the adoption of suppositions, so little justified by experiment or by observation, as to be at least equally distasteful.

The choice lay between two absurdities and a middle condition of uneasy skepticism; which last, however unpleasant and unsatisfactory, was obviously the only justifiable state of mind under the circumstances.

Such being the general ferment in the minds of naturalists, it is no wonder that they mustered strong in the rooms of the Linnæan Society, on the first of July of the year 1858, to hear

[1] How could they have been destroyed, since man has not been able to effect their destruction? — *Editors.* (*Philosophie Zoologique*, vol. i, p. 77.)

two papers by authors living on opposite sides of the globe, working out their results independently, and yet professing to have discovered one and the same solution of all the problems connected with species. The one of these authors was an able naturalist, Mr. Wallace, who had been employed for some years in studying the productions of the islands of the Indian Archipelago, and who had forwarded a memoir embodying his views to Mr. Darwin, for communication to the Linnæan Society. On perusing the essay, Mr. Darwin was not a little surprised to find that it embodied some of the leading ideas of a great work which he had been preparing for twenty years, and parts of which, containing a development of the very same views, had been perused by his private friends fifteen or sixteen years before. Perplexed in what manner to do full justice both to his friend and to himself, Mr. Darwin placed the matter in the hands of Dr. Hooker and Sir Charles Lyell, by whose advice he communicated a brief abstract of his own views to the Linnæan Society, at the same time that Mr. Wallace's paper was read. Of that abstract, the work on the *Origin of Species* is an enlargement, but a complete statement of Mr. Darwin's doctrine is looked for in the large and well-illustrated work which he is said to be preparing for publication.

The Darwinian hypothesis has the merit of being eminently simple and comprehensible in principle, and its essential positions may be stated in a very few words: all species have been produced by the development of varieties from common stocks, by the conversion of these, first into permanent races and then into new species, by the process of *natural selection*, which process is essentially identical with that artificial selection by which man has originated the races of domestic animals — the *struggle for existence* taking the place of man, and exerting, in the case of natural selection, that selective action which he performs in artificial selection.

The evidence brought forward by Mr. Darwin in support of his hypothesis is of three kinds. First, he endeavors to prove

that species may be originated by selection; secondly, he attempts to show that natural causes are competent to exert selection; and thirdly, he tries to prove that the most remarkable and apparently anomalous phenomena exhibited by the distribution, development, and mutual relations of species, can be shown to be deducible from the general doctrine of their origin, which he propounds, combined with the known facts of geological change; and that, even if all these phenomena are not at present explicable by it, none are necessarily inconsistent with it.

There cannot be a doubt that the method of inquiry which Mr. Darwin has adopted is not only rigorously in accordance with the canons of scientific logic, but that it is the only adequate method. Critics exclusively trained in classics or in mathematics, who have never determined a scientific fact in their lives by induction from experiment or observation, prate learnedly about Mr. Darwin's method, which is not inductive enough, not Baconian enough, forsooth, for them. But even if practical acquaintance with the process of scientific investigation is denied them, they may learn, by the perusal of Mr. Mill's admirable chapter "On the Deductive Method," that there are multitudes of scientific inquiries, in which the method of pure induction helps the investigator but a very little way.

"The mode of investigation," says Mr. Mill, "which, from the proved inapplicability of direct methods of observation and experiment, remains to us as the main source of the knowledge we possess, or can acquire, respecting the conditions and laws of recurrence of the more complex phenomena, is called, in its most general expression, the deductive method, and consists of three operations: the first, one of direct induction; the second, of ratiocination; and the third, of verification."

Now, the conditions which have determined the existence of species are not only exceedingly complex, but, so far as the great majority of them are concerned, are necessarily beyond our cognizance. But what Mr. Darwin has attempted to do is in

exact accordance with the rule laid down by Mr. Mill; he has endeavored to determine certain great facts inductively, by observation and experiment; he has then reasoned from the data thus furnished; and lastly, he has tested the validity of his ratiocination by comparing his deductions with the observed facts of nature. Inductively, Mr. Darwin endeavors to prove that species arise in a given way. Deductively, he desires to show that, if they arise in that way, the facts of distribution, development, classification, etc., may be accounted for, *i.e.*, may be deduced from their mode of origin, combined with admitted changes in physical geography and climate, during an indefinite period. And this explanation, or coincidence of observed with deduced facts, is, so far as it extends, a verification of the Darwinian view.

There is no fault to be found with Mr. Darwin's method, then; but it is another question whether he has fulfilled all the conditions imposed by that method. Is it satisfactorily proved, in fact, that species may be originated by selection? that there is such a thing as natural selection? that none of the phenomena exhibited by species are inconsistent with the origin of species in this way? If these questions can be answered in the affirmative, Mr. Darwin's view steps out of the ranks of hypotheses into those of proved theories; but so long as the evidence at present adduced falls short of enforcing that affirmation, so long, to our minds, must the new doctrine be content to remain among the former — an extremely valuable, and in the highest degree probable, doctrine, indeed the only extant hypothesis which is worth anything in a scientific point of view; but still a hypothesis, and not yet the theory of species.

After much consideration, and with assuredly no bias against Mr. Darwin's views, it is our clear conviction that, as the evidence stands, it is not absolutely proven that a group of animals, having all the characters exhibited by species in nature, has ever been originated by selection, whether artificial or natural. Groups having the morphological character of species, distinct and permanent races in fact, have been so produced over and over again;

but there is no positive evidence at present that any group of animals has, by variation and selective breeding, given rise to another group which was even in the least degree infertile with the first. Mr. Darwin is perfectly aware of this weak point, and brings forward a multitude of ingenious and important arguments to diminish the force of the objection. We admit the value of these arguments to their fullest extent; nay, we will go so far as to express our belief that experiments, conducted by a skillful physiologist, would very probably obtain the desired production of mutually more or less infertile breeds from a common stock, in a comparatively few years; but still, as the case stands at present, this "little rift within the lute" is not to be disguised nor overlooked.

In the remainder of Mr. Darwin's argument our own private ingenuity has not hitherto enabled us to pick holes of any great importance; and judging by what we hear and read, other adventurers in the same field do not seem to have been much more fortunate. It has been urged, for instance, that in his chapters on the struggle for existence and on natural selection, Mr. Darwin does not so much prove that natural selection does occur, as that it must occur; but, in fact, no other sort of demonstration is attainable. A race does not attract our attention in nature until it has, in all probability, existed for a considerable time, and then it is too late to inquire into the conditions of its origin. Again, it is said that there is no real analogy between the selection which takes place under domestication, by human influence, and any operation which can be effected by nature, for man interferes intelligently. Reduced to its elements, this argument implies that an effect produced with trouble by an intelligent agent must, *à fortiori*,[1] be more troublesome, if not impossible, to an unintelligent agent. Even putting aside the question whether nature, acting as she does according to definite and invariable laws, can be rightly called an unintelligent agent, such a position as this is wholly untenable. Mix salt and sand, and it shall puzzle the wisest of men with his mere natural appli-

[1] All the more. — *Editors.*

ances to separate all the grains of sand from all the grains of salt; but a shower of rain will effect the same object in ten minutes. And so while man may find it tax all his intelligence to separate any variety which arises, and to breed selectively from it, the destructive agencies incessantly at work in nature, if they find one variety to be more soluble in circumstances than the other, will inevitably in the long run eliminate it.

A frequent and a just objection to the Lamarckian hypothesis of the transmutation of species is based upon the absence of transitional forms between many species. But against the Darwinian hypothesis this argument has no force. Indeed, one of the most valuable and suggestive parts of Mr. Darwin's work is that in which he proves that the frequent absence of transitions is a necessary consequence of his doctrine, and that the stock whence two or more species have sprung, need in no respect be intermediate between these species. If any two species have arisen from a common stock in the same way as the carrier and the pouter, say, have arisen from the rock pigeon, then the common stock of these two species need be no more intermediate between the two than the rock pigeon is between the carrier and pouter. Clearly appreciate the force of this analogy, and all the arguments against the origin of species by selection, based on the absence of transitional forms, fall to the ground. And Mr. Darwin's position might, we think, have been even stronger than it is if he had not embarrassed himself with the aphorism, "*Natura non facit saltum*,"[1] which turns up so often in his pages. We believe, as we have said above, that nature does make jumps now and then, and a recognition of the fact is of no small importance in disposing of many minor objections to the doctrine of transmutation.

But we must pause. The discussion of Mr. Darwin's arguments in detail would lead us far beyond the limits within which we proposed, at starting, to confine this article. Our object has been attained if we have given an intelligible, however brief, account of the established facts connected with species, and of

[1] Nature does not advance in leaps. — *Editors.*

the relation of the explanation of those facts offered by Mr. Darwin to the theoretical views held by his predecessors and his contemporaries, and, above all, to the requirements of scientific logic. We have ventured to point out that it does not, as yet, satisfy all those requirements; but we do not hesitate to assert that it is as superior to any preceding or contemporary hypothesis, in the extent of observational and experimental basis on which it rests, in its rigorously scientific method, and in its power of explaining biological phenomena, as was the hypothesis of Copernicus to the speculations of Ptolemy. But the planetary orbits turned out to be not quite circular after all, and grand as was the service Copernicus rendered to science, Kepler and Newton had to come after him. What if the orbit of Darwinism should be a little too circular? What if species should offer residual phenomena, here and there, not explicable by natural selection? Twenty years hence naturalists may be in a position to say whether this is, or is not, the case; but in either event they will owe the author of *The Origin of Species* an immense debt of gratitude. We should leave a very wrong impression on the reader's mind if we permitted him to suppose that the value of that work depends wholly on the ultimate justification of the theoretical views which it contains. On the contrary, if they were disproved to-morrow, the book would still be the best of its kind — the most compendious statement of well-sifted facts bearing on the doctrine of species that has ever appeared. The chapters on Variation, on the Struggle for Existence, on Instinct, on Hybridism, on the Imperfection of the Geological Record, on Geographical Distribution, have not only no equals, but, so far as our knowledge goes, no competitors, within the range of biological literature. And viewed as a whole, we do not believe that, since the publication of von Baer's *Researches on Development*, thirty years ago, any work has appeared calculated to exert so large an influence, not only on the future of Biology, but in extending the domination of Science over regions of thought into which she has, as yet, hardly penetrated.

IX

DARWINISM AS APPLIED TO MAN

Alfred Russel Wallace

[Alfred Russel Wallace (1823–), distinguished as a scientist and as joint proponent, with Darwin, of the theory of evolution, became interested in natural science at about his twentieth year. As early as 1847 his ideas were directed to the study of species, and especially of the causes of their origin. Under an impulse provided in part by Darwin's *Journal*, he decided to make natural history collections in the region of the Amazon, and later in the Malayan Archipelago. Continuing here his investigations of the phenomena of species, he entered into correspondence with Darwin, to whom in 1858 he communicated his independent discovery of what are now known as the laws of selection and of the survival of the fittest. Darwin himself, however, had formulated the same laws twenty years before, but had occupied himself in the meanwhile by gathering biological and geological evidence in support of his conclusions, in order to publish them not as an unsupported theory, but as substantially a scientific certainty. The results of the separate investigations of the two scholars were presented simultaneously to the Linnæan Society in 1858; but in the following year Darwin's *Origin of Species*, which presented an overwhelming mass of scientific evidence in support of the idea, permanently associated Darwin's name with the theory. Wallace's attitude toward the question of credit for the discovery of this theory was throughout one of admirable modesty.

Darwinism Applied to Man, which is the concluding chapter of the volume *Darwinism*, published in 1889, is a sound and interesting review of the application of the law of evolution to mankind, and in addition something of a history of his civilization. Wallace's view of man's place in nature, it must be mentioned, was largely determined by a religious habit of mind. For this reason his interpretation of the most striking point of specific differentiation between man and the lower animals, the evidences of what he calls a "higher nature," traces man's special faculties not to inherited capacities but to a distinct spiritual gift. This view presents an interesting contrast to Huxley's opinion that man's special attainments have resulted from his acquisition, through purely evolutional forces, of the power of articulate speech, whence his ability to communicate abstract ideas.]

Our review of modern Darwinism might fitly have terminated with the preceding chapter; but the immense interest that attaches to the origin of the human race, and the amount of misconception which prevails regarding the essential teachings of Darwin's theory on this question, as well as regarding my own special views upon it, induce me to devote a final chapter to its discussion.

To any one who considers the structure of man's body, even in the most superficial manner, it must be evident that it is the body of an animal, differing greatly, it is true, from the bodies of all other animals, but agreeing with them in all essential features. The bony structure of man classes him as a vertebrate; the mode of suckling his young classes him as a mammal; his blood, his muscles, and his nerves, the structure of his heart with its veins and arteries, his lungs and his whole respiratory and circulatory systems, all closely correspond to those of other mammals, and are often almost identical with them. He possesses the same number of limbs terminating in the same number of digits as belong fundamentally to the mammalian class. His senses are identical with theirs, and his organs of sense are the same in number and occupy the same relative position. Every detail of structure which is common to the mammalia as a class is found also in man, while he only differs from them in such ways and degrees as the various species or groups of mammals differ from each other. If, then, we have good reason to believe that every existing group of mammalia has descended from some common ancestral form — as we saw to be so completely demonstrated in the case of the horse tribe, — and that each family, each order, and even the whole class must similarly have descended from some much more ancient and more generalized type, it would be in the highest degree improbable — so improbable as to be almost inconceivable — that man, agreeing with them so closely in every detail of his structure, should have had some quite distinct mode of origin. Let us, then, see what other evidence bears upon the question, and whether it is sufficient to convert the probability of his animal origin into a practical certainty.

All the higher animals present rudiments of organs which, though useless to them, are useful in some allied group, and are believed to have descended from a common ancestor in which they were useful. Thus there are in ruminants rudiments of incisor teeth which, in some species, never cut through the gums; many lizards have external rudimentary legs; while many birds, as the Apteryx, have quite rudimentary wings. Now man possesses similar rudiments, sometimes constantly, sometimes only occasionally present, which serve intimately to connect his bodily structure with that of the lower animals. Many animals, for example, have a special muscle for moving or twitching the skin. In man there are remnants of this in certain parts of the body, especially in the forehead, enabling us to raise our eyebrows; but some persons have it in other parts. A few persons are able to move the whole scalp so as to throw off any object placed on the head, and this property has been proved, in one case, to be inherited. In the outer fold of the ear there is sometimes a projecting point, corresponding in position to the pointed ear of many animals, and believed to be a rudiment of it. In the alimentary canal there is a rudiment — the vermiform appendage of the cæcum — which is not only useless, but is sometimes a cause of disease and death in man; yet in many vegetable feeding animals it is very long, and even in the orang-utan it is of considerable length and convoluted. So, man possesses rudimentary bones of a tail concealed beneath the skin, and, in some rare cases, this forms a minute external tail.

The variability of every part of man's structure is very great, and many of these variations tend to approximate towards the structure of other animals. The courses of the arteries are eminently variable, so that for surgical purposes it has been necessary to determine the probable proportion of each variation. The muscles are so variable that in fifty cases the muscles of the foot were found to be not strictly alike in any two, and in some the deviations were considerable; while in thirty-six subjects Mr. J. Wood observed no fewer than 558 muscular variations. The same author states that in a single male subject

there were no fewer than seven muscular variations, all of which plainly represented muscles proper to various kinds of apes. The muscles of the hands and arms — parts which are so eminently characteristic of man — are extremely liable to vary, so as to resemble the corresponding muscles of the lower animals. That such variations are due to reversion to a former state of existence Mr. Darwin thinks highly probable, and he adds: "It is quite incredible that a man should, through mere accident, abnormally resemble certain apes in no less than seven of his muscles, if there had been no genetic connection between them. On the other hand, if man is descended from some apelike creature, no valid reason can be assigned why certain muscles should not suddenly reappear after an interval of many thousand generations, in the same manner as, with horses, asses, and mules, dark colored stripes suddenly reappear on the legs and shoulders, after an interval of hundreds, or more probably of thousands, of generations." [1]

The progressive development of any vertebrate from the ovum or minute embryonic egg affords one of the most marvelous chapters in Natural History. We see the contents of the ovum undergoing numerous definite changes, its interior dividing and subdividing till it consists of a mass of cells; then a groove appears marking out the median line or vertebral column of the future animal, and thereafter are slowly developed the various essential organs of the body. After describing in some detail what takes place in the case of the ovum of the dog, Professor Huxley continues: "The history of the development of any other vertebrate animal, lizard, snake, frog, or fish, tells the same story. There is always to begin with, an egg having the same essential structure as that of the dog; the yolk of that egg undergoes division or segmentation, as it is called; the ultimate products of that segmentation constitute the building materials for the body of the young animal; and this is built up round a primitive groove, in the floor of which a notochord is developed.

[1] *Descent of Man*, pp. 41–43; also pp. 13–15.

Furthermore, there is a period in which the young of all these animals resemble one another, not merely in outward form, but in all essentials of structure, so closely that the differences between them are inconsiderable, while in their subsequent course they diverge more and more widely from one another. And it is a general law that the more closely any animals resemble one another in adult structure, the longer and the more intimately do their embryos resemble one another; so that, for example, the embryos of a snake and of a lizard remain like one another longer than do those of a snake and a bird; and the embryos of a dog and of a cat remain like one another for a far longer period than do those of a dog and a bird, or of a dog and an opossum, or even than those of a dog and a monkey."[1]

We thus see that the study of development affords a test of affinity in animals that are externally very much unlike each other; and we naturally ask how this applies to man. Is he developed in a different way from other mammals, as we should certainly expect if he has had a distinct and altogether different origin? "The reply," says Professor Huxley, "is not doubtful for a moment. Without question, the mode of origin and the early stages of the development of man are identical with those of the animals immediately below him in the scale." And again he tells us: "It is very long before the body of the young human being can be readily discriminated from that of the young puppy; but at a tolerably early period the two become distinguishable by the different forms of their adjuncts, the yolk-sac and the allantois;" and after describing these differences he continues: "But exactly in those respects in which the developing man differs from the dog, he resembles the ape. . . . So that it is only quite in the later stages of development that the young human being presents marked differences from the young ape, while the latter departs as much from the dog in its development as the man does. Startling as this last assertion may appear to be, it is demonstrably true, and it alone appears to me sufficient to place beyond all doubt the structural unity of man

[1] *Man's Place in Nature*, p. 64.

with the rest of the animal world, and more particularly and closely with the apes." [1]

A few of the curious details in which man passes through stages common to the lower animals may be mentioned. At one stage the os coccyx projects like a true tail, extending considerably beyond the rudimentary legs. In the seventh month the convolutions of the brain resemble those of an adult baboon. The great toe, so characteristic of man, forming the fulcrum which most assists him in standing erect, in an early stage of the embryo is much shorter than the other toes, and instead of being parallel with them, projects at an angle from the side of the foot, thus corresponding with its permanent condition in the quadrumana. Numerous other examples might be quoted, all illustrating the same general law.

Though the fact is so well known, it is certainly one of profound significance that many animal diseases can be communicated to man, since it shows similarity, if not identity, in the minute structure of the tissues, the nature of the blood, the nerves, and the brain. Such diseases as hydrophobia, variola, the glanders, cholera, herpes, etc., can be transmitted from animals to man or the reverse; while monkeys are liable to many of the same noncontagious diseases as we are. Rengger, who carefully observed the common monkey (*Cebus Azaræ*) in Paraguay, found it liable to catarrh, with the usual symptoms, terminating sometimes in consumption. These monkeys also suffered from apoplexy, inflammation of the bowels, and cataract in the eye. Medicines produced the same effect upon them as upon us. Many kinds of monkeys have a strong taste for tea, coffee, spirits, and even tobacco. These facts show the similarity of the nerves of taste in monkeys and in ourselves, and that their whole nervous system is affected in a similar way. Even the parasites, both external and internal, that affect man are not altogether peculiar to him, but belong to the same families or genera as those which infest animals, and in one case,

[1] *Man's Place in Nature*, p. 67.

scabies, even the same species.[1] These curious facts seem quite inconsistent with the idea that man's bodily structure and nature are altogether distinct from those of animals, and have had a different origin; while the facts are just what we should expect if he has been produced by descent with modification from some common ancestor.

By universal consent we see in the monkey tribe a caricature of humanity. Their faces, their hands, their actions and expressions present ludicrous resemblances to our own. But there is one group of this great tribe in which this resemblance is greatest, and they have hence been called the anthropoid or manlike apes. These are few in number, and inhabit only the equatorial regions of Africa and Asia, countries where the climate is most uniform, the forests densest, and the supply of fruit abundant throughout the year. These animals are now comparatively well known, consisting of the orang-utan of Borneo and Sumatra, the chimpanzee and the gorilla of West Africa, and the group of gibbons or long-armed apes, consisting of many species and inhabiting Southeastern Asia and the larger Malay Islands. These last are far less like man than the other three, one or other of which has at various times been claimed to be the most manlike of the apes and our nearest relations in the animal kingdom. The question of the degree of resemblance of these animals to ourselves is one of great interest, leading, as it does, to some important conclusions as to our origin and geological antiquity, and we will therefore briefly consider it.

If we compare the skeletons of the orang or chimpanzee with that of man, we find them to be a kind of distorted copy, every bone corresponding (with very few exceptions), but altered somewhat in size, proportions, and position. So great is this resemblance that it led Professor Owen to remark: "I cannot shut my eyes to the significance of that all-pervading similitude of structure — every tooth, every bone, strictly homologous —

[1] *The Descent of Man*, pp. 7, 8.

which makes the determination of the difference between *Homo* and *Pithecus* the anatomist's difficulty."

The actual differences in the skeletons of these apes and that of man — that is, differences dependent on the presence or absence of certain bones, and not on their form or position — have been enumerated by Mr. Mivart as follows: (1) In the breast-bone consisting of but two bones, man agrees with the gibbons; the chimpanzee and gorilla having this part consisting of seven bones in a single series, while in the orang they are arranged in a double series of ten bones. (2) The normal number of the ribs in the orang and some gibbons is twelve pairs, as in man, while in the chimpanzee and gorilla there are thirteen pairs. (3) The orang and the gibbons also agree with man in having five lumbar vertebræ, while in the gorilla and the chimpanzee there are but four, and sometimes only three. (4) The gorilla and chimpanzee agree with man in having eight small bones in the wrist, while the orang and the gibbons, as well as all other monkeys, have nine.[1]

The differences in the form, size, and attachments of the various bones, muscles, and other organs of these apes and man are very numerous and exceedingly complex, sometimes one species, sometimes another agreeing most nearly with ourselves, thus presenting a tangled web of affinities which it is very difficult to unravel. Estimated by the skeleton alone, the chimpanzee and gorilla seem nearer to man than the orang, which last is also inferior as presenting certain aberrations in the muscles. In the form of the ear the gorilla is more human than any other ape, while in the tongue the orang is the more manlike. In the stomach and liver the gibbons approach nearest to man; then come the orang and chimpanzee, while the gorilla has a degraded liver more resembling that of the lower monkeys and baboons.

[1] *Man and Apes*. By St. George Mivart, F.R.S., 1873. It is an interesting fact (for which I am indebted to Mr. F. B. Poulton) that the human embryo possesses the extra rib and wrist bone referred to above in (2) and (4) as occurring in some of the apes.

We come now to that part of his organization in which man is so much higher than all the lower animals — the brain; and here, Mr. Mivart informs us, the orang stands highest in rank. The height of the orang's cerebrum in front is greater in proportion than in either the chimpanzee or the gorilla. "On comparing the brain of man with the brains of the orang, chimpanzee, and baboon, we find a successive decrease in the frontal lobe, and a successive and very great increase in the relative size of the occipital lobe. Concomitantly with this increase and decrease, certain folds of brain substance, called 'bridging convolutions,' which in man are conspicuously interposed between the parietal and occipital lobes, seem as utterly to disappear in the chimpanzee, as they do in the baboon. In the orang, however, though much reduced, they are still to be distinguished. . . . The actual and absolute mass of the brain is, however, slightly greater in the chimpanzee than in the orang, as is the relative vertical extent of the middle part of the cerebrum, although, as already stated, the frontal portion is higher in the orang; while, according to M. Gratiolet, the gorilla is not only inferior to the orang in cerebral development, but even to his smaller African congener, the chimpanzee." [1]

On the whole, then, we find that no one of the great apes can be positively asserted to be nearest to man in structure. Each of them approaches him in certain characteristics, while in others it is widely removed, giving the idea, so consonant with the theory of evolution as developed by Darwin, that all are derived from a common ancestor, from which the existing anthropoid apes as well as man have diverged. When, however, we turn from the details of anatomy to peculiarities of external form and motions, we find that in a variety of characters all these apes resemble each other and differ from man, so that we may fairly say that while they have diverged somewhat from each other, they have diverged much more widely from ourselves. Let us briefly enumerate some of these differences.

[1] *Man and Apes*, pp. 138, 144.

All apes have large canine teeth, while in man these are no longer than the adjacent incisors or premolars, the whole forming a perfectly even series. In apes the arms are proportionately much longer than in man, while the thighs are much shorter. No ape stands really erect, a posture which is natural in man. The thumb is proportionately larger in man, and more perfectly opposable than in that of any ape. The foot of man differs largely from that of all apes, in the horizontal sole, the projecting heel, the short toes, and the powerful great toe firmly attached parallel to the other toes; all perfectly adapted for maintaining the erect posture, and for free motion without any aid from the arms or hands. In apes the foot is formed almost exactly like our hand, with a large thumblike great toe quite free from the other toes, and so articulated as to be opposable to them; forming with the long fingerlike toes a perfect grasping hand. The sole cannot be placed horizontally on the ground; but when standing on a level surface the animal rests on the outer edge of the foot with the finger and thumblike toes partly closed, while the hands are placed on the ground resting on the knuckles. . . .

The four limbs, with the peculiarly formed feet and hands, are those of arboreal animals which only occasionally and awkwardly move on level ground. The arms are used in progression equally with the feet, and the hands are only adapted for uses similar to those of our hands when the animal is at rest, and then but clumsily. Lastly, the apes are all hairy animals, like the majority of other mammals, man alone having a smooth and almost naked skin. These numerous and striking differences, even more than those of the skeleton and internal anatomy, point to an enormously remote epoch when the race that was ultimately to develop into man diverged from that other stock which continued the animal type and ultimately produced the existing varieties of anthropoid apes.

The facts now very briefly summarized amount almost to a demonstration that man, in his bodily structure, has been de-

rived from the lower animals, of which he is the culminating development. In his possession of rudimentary structures which are functional in some of the mammalia; in the numerous variations of his muscles and other organs agreeing with characters which are constant in some apes; in his embryonic development, absolutely identical in character with that of mammalia in general, and closely resembling in its details that of the higher quadrumana; in the diseases which he has in common with other mammalia; and in the wonderful approximation of his skeleton to those of one or other of the anthropoid apes, we have an amount of evidence in this direction which it seems impossible to explain away. And this evidence will appear more forcible if we consider for a moment what the rejection of it implies. For the only alternative supposition is, that man has been specially created — that is to say, has been produced in some quite different way from other animals and altogether independently of them. But in that case the rudimentary structures, the animal-like variations, the identical course of development, and all the other animal characteristics he possesses are deceptive, and inevitably lead us, as thinking beings making use of the reason which is our noblest and most distinctive feature, into gross error.

We cannot believe, however, that a careful study of the facts of nature leads to conclusions directly opposed to the truth; and, as we seek in vain, in our physical structure and the course of its development, for any indication of an origin independent of the rest of the animal world, we are compelled to reject the idea of "special creation" for man, as being entirely unsupported by facts as well as in the highest degree improbable.

The evidence we now possess of the exact nature of the resemblance of man to the various species of anthropoid apes, shows us that he has little special affinity for any one rather than another species, while he differs from them all in several important characters in which they agree with each other. The conclusion to be drawn from these facts is, that his points of affinity

connect him with the whole group, while his special peculiarities equally separate him from the whole group, and that he must, therefore, have diverged from the common ancestral form before the existing types of anthropoid apes had diverged from each other. Now, this divergence almost certainly took place as early as the Miocene period, because in the Upper Miocene deposits of Western Europe remains of two species of ape have been found allied to the gibbons, one of them, *Dryopithecus*, nearly as large as a man, and believed by M. Lartet to have approached man in its dentition more than the existing apes. We seem hardly, therefore, to have reached, in the Upper Miocene, the epoch of the common ancestor of man and the anthropoids.

The evidence of the antiquity of man himself is also scanty, and takes us but very little way back into the past. We have clear proof of his existence in Europe in the latter stages of the Glacial epoch, with many indications of his presence in inter-Glacial or even pre-Glacial times; while both the actual remains and the works of man found in the auriferous gravels of California deep under lava-flows of Pliocene age show that he existed in the New World at least as early as in the Old.[1] These earliest remains of man have been received with doubt, and even with ridicule, as if there were some extreme improbability in them. But, in point of fact, the wonder is that human remains have not been found more frequently in pre-Glacial deposits. Referring to the most ancient fossil remains found in Europe, — the Engis and Neanderthal crania, — Professor Huxley makes the following weighty remark: "In conclusion, I may say, that the fossil remains of Man hitherto discovered do not seem to me to take us appreciably nearer to that lower pithecoid form, by the modification of which he has, probably, become what he is." The Californian remains and works of art, above referred to, give no indication of a specially low form of man; and it remains an unsolved problem why no traces of the long line of

[1] For a sketch of the evidence of Man's Antiquity in America, see the *Nineteenth Century* for November, 1887.

man's ancestors, back to the remote period when he first branched off from the pithecoid type, have yet been discovered.

It has been objected by some writers — notably by Professor Boyd Dawkins — that man did not probably exist in Pliocene times, because almost all the known mammalia of that epoch are distinct species from those now living on the earth, and that the same changes of the environment which led to the modification of other mammalian species would also have led to a change in man. But this argument overlooks the fact that man differs essentially from all other mammals in this respect, that whereas any important adaptation to new conditions can be effected in them only by a change in bodily structure, man is able to adapt himself to much greater changes of conditions by a mental development leading him to the use of fire, of tools, of clothing, of improved dwellings, of nets and snares, and of agriculture. By the help of these, without any change whatever in his bodily structure, he has been able to spread over and occupy the whole earth; to dwell securely in forest, plain, or mountain; to inhabit alike the burning desert or the arctic wastes; to cope with every kind of wild beast, and to provide himself with food in districts where, as an animal trusting to nature's unaided productions, he would have starved.[1]

It follows, therefore, that from the time when the ancestral man first walked erect, with hands freed from any active part in locomotion, and when his brain power became sufficient to cause him to use his hands in making weapons and tools, houses and clothing, to use fire for cooking, and to plant seeds or roots to supply himself with stores of food, the power of natural selection would cease to act in producing modifications of his body, but would continuously advance his mind through the development of its organ, the brain. Hence man may have become truly man — the species, *Homo sapiens* — even in the Miocene period; and while all other mammals were becoming modified

[1] This subject was first discussed in an article in the *Anthropological Review*, May, 1864, and republished in my *Contributions to Natural Selection*, chap. ix, in 1870.

from age to age under the influence of ever changing physical and biological conditions, he would be advancing mainly in intelligence, but perhaps also in stature, and by that advance alone would be able to maintain himself as the master of all other animals and as the most widespread occupier of the earth. It is quite in accordance with this view that we find the most pronounced distinction between man and the anthropoid apes in the size and complexity of his brain. Thus, Professor Huxley tells us that "it may be doubted whether a healthy human adult brain ever weighed less than 31 or 32 ounces, or that the heaviest gorilla brain has exceeded 20 ounces," although "a full-grown gorilla is probably pretty nearly twice as heavy as a Bosjes man, or as many an European woman." [1] The average human brain, however, weighs 48 or 49 ounces, and if we take the average ape brain at only 2 ounces less than the very largest gorilla's brain, or 18 ounces, we shall see better the enormous increase which has taken place in the brain of man since the time when he branched off from the apes; and this increase will be still greater if we consider that the brains of apes, like those of all other mammals, have also increased from earlier to later geological times.

If these various considerations are taken into account, we must conclude that the essential features of man's structure as compared with that of apes — his erect posture and free hands — were acquired at a comparatively early period, and were, in fact, the characteristics which gave him his superiority over other mammals, and started him on the line of development which has led to his conquest of the world. But during this long and steady development of brain and intellect, mankind must have continuously increased in numbers and in the area which they occupied — they must have formed what Darwin terms a "dominant race." For had they been few in numbers and confined to a limited area, they could hardly have successfully struggled against the numerous fierce carnivora of that period, and against those adverse influences which led to the extinction of so many more powerful animals. A large popula-

[1] *Man's Place in Nature*, p. 102.

tion spread over an extensive area is also needed to supply an adequate number of brain variations for man's progressive improvement. But this large population and long-continued development in a single line of advance renders it the more difficult to account for the complete absence of human or prehuman remains in all those deposits which have furnished, in such rich abundance, the remains of other land animals. It is true that the remains of apes are also very rare, and we may well suppose that the superior intelligence of man led him to avoid that extensive destruction by flood or in morass which seems to have often overwhelmed other animals. Yet, when we consider that even in our own day men are not unfrequently overwhelmed by volcanic eruptions, as in Java and Japan, or carried away in vast numbers by floods, as in Bengal and China, it seems impossible but that ample remains of Miocene and Pliocene man do exist buried in the most recent layers of the earth's crust, and that more extended research or some fortunate discovery will some day bring them to light.

It has usually been considered that the ancestral form of man originated in the tropics, where vegetation is most abundant and the climate most equable. But there are some important objections to this view. The anthropoid apes, as well as most of the monkey tribe, are essentially arboreal in their structure, whereas the great distinctive character of man is his special adaptation to terrestrial locomotion. We can hardly suppose, therefore, that he originated in a forest region, where fruits to be obtained by climbing are the chief vegetable food. It is more probable that he began his existence on the open plains or high plateaus of the temperate or subtropical zone, where the seeds of indigenous cereals and numerous herbivora, rodents, and game birds, with fishes and mollusks in the lakes, rivers, and seas supplied him with an abundance of varied food. In such a region he would develop skill as a hunter, trapper, or fisherman, and later as a herdsman and cultivator, — a succession of which we find indications in the paleolithic and neolithic races of Europe.

In seeking to determine the particular areas in which his earliest traces are likely to be found, we are restricted to some portion of the Eastern Hemisphere, where alone the anthropoid apes exist, or have apparently ever existed.

There is good reason to believe, also, that Africa must be excluded, because it is known to have been separated from the northern continent in early Tertiary times, and to have acquired its existing fauna of the higher mammalia by a later union with that continent after the separation from it of Madagascar, an island which has preserved for us a sample, as it were, of the early African mammalian fauna, from which not only the anthropoid apes, but all the higher quadrumana are absent.[1] There remains only the great Euro-Asiatic continent; and its enormous plateaus, extending from Persia right across Tibet and Siberia to Manchuria, afford an area, some part or other of which probably offered suitable conditions, in late Miocene or early Pliocene times, for the development of ancestral man.

It is in this area that we still find that type of mankind — the Mongolian — which retains a color of the skin midway between the black or brown-black of the negro, and the ruddy or olive-white of the Caucasian types, a color which still prevails over all Northern Asia, over the American continents, and over much of Polynesia. From this primary tint arose, under the influence of varied conditions, and probably in correlation with constitutional changes adapted to peculiar climates, the varied tints which still exist among mankind. If the reasoning by which this conclusion is reached be sound, and all the earlier stages of man's development from an animal form occurred in the area now indicated, we can better understand how it is that we have as yet met with no traces of the missing links, or even of man's existence during late Tertiary times, because no part of the world is so entirely unexplored by the geologist as this very region. The area in question is sufficiently extensive and varied to admit of primeval man having attained to a con-

[1] For a full discussion of this question, see the author's *Geographical Distribution of Animals*, vol. i, p. 285.

siderable population, and having developed his full human characteristics, both physical and mental, before there was any need for him to migrate beyond its limits. One of these earliest important migrations was probably into Africa, where, spreading westward, he became modified in color and hair in correlation with physiological changes adapting him to the climate of the equatorial lowlands. Spreading northwestward into Europe the moist and cool climate led to a modification of an opposite character, and thus may have arisen the three great human types which still exist. Somewhat later, probably, he spread eastward into Northwest America and soon scattered himself over the whole continent; and all this may well have occurred in early or middle Pliocene times. Thereafter, at very long intervals, successive waves of migration carried him into every part of the habitable world, and by conquest and intermixture led ultimately to that puzzling gradation of types which the ethnologist in vain seeks to unravel.

From the foregoing discussion it will be seen that I fully accept Mr. Darwin's conclusion as to the essential identity of man's bodily structure with that of the higher mammalia, and his descent from some ancestral form common to man and the anthropoid apes. The evidence of such descent appears to me to be overwhelming and conclusive. Again, as to the cause and method of such descent and modification, we may admit, at all events provisionally, that the laws of variation and natural selection, acting through the struggle for existence and the continual need of more perfect adaptation to the physical and biological environments, may have brought about, first that perfection of bodily structure in which he is so far above all other animals, and in coördination with it the larger and more developed brain, by means of which he has been able to utilize that structure in the more and more complete subjection of the whole animal and vegetable kingdoms to his service.

But this is only the beginning of Mr. Darwin's work, since he goes on to discuss the moral nature and mental faculties of man,

and derives these too by gradual modification and development from the lower animals. Although, perhaps, nowhere distinctly formulated, his whole argument tends to the conclusion that man's entire nature and all his faculties, whether moral, intellectual, or spiritual, have been derived from their rudiments in the lower animals, in the same manner and by the action of the same general laws as his physical structure has been derived. As this conclusion appears to me not to be supported by adequate evidence, and to be directly opposed to many well-ascertained facts, I propose to devote a brief space to its discussion.

Mr. Darwin's mode of argument consists in showing that the rudiments of most, if not of all, the mental and moral faculties of man can be detected in some animals. The manifestations of intelligence, amounting in some cases to distinct acts of reasoning, in many animals, are adduced as exhibiting in a much less degree the intelligence and reason of man. Instances of curiosity, imitation, attention, wonder, and memory are given; while examples are also adduced which may be interpreted as proving that animals exhibit kindness to their fellows, or manifest pride, contempt, and shame. Some are said to have the rudiments of language, because they utter several different sounds, each of which has a definite meaning to their fellows or to their young; others the rudiments of arithmetic, because they seem to count and remember up to three, four, or even five. A sense of beauty is imputed to them on account of their own bright colors or the use of colored objects in their nests; while dogs, cats, and horses are said to have imagination, because they appear to be disturbed by dreams. Even some distant approach to the rudiments of religion is said to be found in the deep love and complete submission of a dog to his master.[1]

Turning from animals to man, it is shown that in the lowest savages many of these faculties are very little advanced from the condition in which they appear in the higher animals; while others, although fairly well exhibited, are yet greatly inferior to

[1] For a full discussion of all these points, see *Descent of Man*, chap. iii.

the point of development they have reached in civilized races. In particular, the moral sense is said to have been developed from the social instincts of savages, and to depend mainly on the enduring discomfort produced by any action which excites the general disapproval of the tribe. Thus, every act of an individual which is believed to be contrary to the interests of the tribe, excites its unvarying disapprobation and is held to be immoral; while every act, on the other hand, which is, as a rule, beneficial to the tribe, is warmly and constantly approved, and is thus considered to be right or moral. From the mental struggle, when an act that would benefit self is injurious to the tribe, there arises conscience; and thus the social instincts are the foundation of the moral sense and of the fundamental principles of morality.[1]

The question of the origin and nature of the moral sense and of conscience is far too vast and complex to be discussed here, and a reference to it has been introduced only to complete the sketch of Mr. Darwin's view of the continuity and gradual development of all human faculties from the lower animals up to savages, and from savage up to civilized man. The point to which I wish specially to call attention is, that to prove continuity and the progressive development of the intellectual and moral faculties from animals to man, is not the same as proving that these faculties have been developed by natural selection; and this last is what Mr. Darwin has hardly attempted, although to support his theory it was absolutely essential to prove it. Because man's physical structure has been developed from an animal form by natural selection, it does not necessarily follow that his mental nature, even though developed *pari passu*[2] with it, has been developed by the same causes only.

To illustrate by a physical analogy. Upheaval and depression of land, combined with subaërial denudation by wind and frost, rain and rivers, and marine denudation on coast lines, were long thought to account for all the modeling of the earth's surface not directly due to volcanic action; and in the early editions of Lyell's *Principles of Geology* these are the sole causes appealed to.

[1] *Descent of Man*, chap. iv.

[2] Simultaneously. — *Editors*

But when the action of glaciers was studied and the recent occurrence of a Glacial epoch demonstrated as a fact, many phenomena — such as moraines and other gravel deposits, bowlder clay, erratic bowlders, grooved and rounded rocks, and Alpine lake basins — were seen to be due to this altogether distinct cause. There was no breach of continuity, no sudden catastrophe; the cold period came on and passed away in the most gradual manner, and its effects often passed insensibly into those produced by denudation or upheaval; yet none the less a new agency appeared at a definite time, and new effects were produced which, though continuous with preceding effects, were not due to the same causes. It is not, therefore, to be assumed, without proof or against independent evidence, that the later stages of an apparently continuous development are necessarily due to the same causes only as the earlier stages. Applying this argument to the case of man's intellectual and moral nature, I propose to show that certain definite portions of it could not have been developed by variation and natural selection alone, and that, therefore, some other influence, law, or agency is required to account for them. If this can be clearly shown for any one or more of the special faculties of intellectual man, we shall be justified in assuming that the same unknown cause or power may have had a much wider influence, and may have profoundly influenced the whole course of his development.

We have ample evidence that, in all the lower races of man, what may be termed the mathematical faculty is either absent, or, if present, quite unexercised. The Bushmen and the Brazilian Wood-Indians are said not to count beyond two. Many Australian tribes only have words for one and two, which are combined to make three, four, five, or six, beyond which they do not count. The Damaras of South Africa only count to three; and Mr. Galton gives a curious description of how one of them was hopelessly puzzled when he had sold two sheep for two sticks of tobacco each, and received four sticks in payment. He could only find out that he was correctly paid by taking two sticks and

then giving one sheep, then receiving two sticks more and giving the other sheep. Even the comparatively intellectual Zulus can only count up to ten by using the hands and fingers. The Ahts of Northwest America count in nearly the same manner, and most of the tribes of South America are no further advanced.[1] The Kaffirs have great herds of cattle, and if one is lost they miss it immediately, but this is not by counting, but by noticing the absence of one they know; just as in a large family or a school a boy is missed without going through the process of counting. Somewhat higher races, as the Eskimos, can count up to twenty by using the hands and the feet; and other races get even further than this by saying "one man" for twenty, "two men" for forty, and so on, equivalent to our rural mode of reckoning by scores. From the fact that so many of the existing savage races can only count to four or five, Sir John Lubbock thinks it improbable that our earliest ancestors could have counted as high as ten.[2]

When we turn to the more civilized races, we find the use of numbers and the art of counting greatly extended. Even the Tongas of the South Sea islands are said to have been able to count as high as 100,000. But mere counting does not imply either the possession or the use of anything that can be really called the mathematical faculty, the exercise of which in any broad sense has only been possible since the introduction of the decimal notation. The Greeks, the Romans, the Egyptians, the Jews, and the Chinese had all such cumbrous systems that anything like a science of arithmetic, beyond very simple operations,

[1] Lubbock's *Origin of Civilization*, fourth edition, pp. 434–440; Tylor's *Primitive Culture*, chap. vii.

[2] It has been recently stated that some of these facts are erroneous, and that some Australians can keep accurate reckoning up to 100, or more, when required. But this does not alter the general fact that many low races, including the Australians, have no words for high numbers and never require to use them. If they are now, with a little practice, able to count much higher, this indicates the possession of a faculty which could not have been developed under the law of utility only, since the absence of words for such high numbers shows that they were neither used nor required.

was impossible; and the Roman system, by which the year 1888 would be written MDCCCLXXXVIII, was that in common use in Europe down to the fourteenth or fifteenth centuries, and even much later in some places. Algebra, which was invented by the Hindus, from whom also came the decimal notation, was not introduced into Europe till the thirteenth century, although the Greeks had some acquaintance with it; and it reached Western Europe from Italy only in the sixteenth century. It was, no doubt, owing to the absence of a sound system of numeration that the mathematical talent of the Greeks was directed chiefly to geometry, in which science Euclid, Archimedes, and others made such brilliant discoveries. It is, however, during the last three centuries only that the civilized world appears to have become conscious of the possession of a marvelous faculty which, when supplied with the necessary tools in the decimal notation, the elements of algebra and geometry, and the power of rapidly communicating discoveries and ideas by the art of printing, has developed to an extent, the full grandeur of which can be appreciated only by those who have devoted some time (even if unsuccessfully) to the study.

The facts now set forth as to the almost total absence of mathematical faculty in savages and its wonderful development in quite recent times are exceedingly suggestive, and in regard to them we are limited to two possible theories. Either prehistoric and savage man did not possess this faculty at all (or only in its merest rudiments); or they did possess it, but had neither the means nor the incitements for its exercise. In the former case we have to ask by what means has this faculty been so rapidly developed in all civilized races, many of which a few centuries back were, in this respect, almost savages themselves; while in the latter case the difficulty is still greater, for we have to assume the existence of a faculty which had never been used either by the supposed possessors of it or by their ancestors.

Let us take, then, the least difficult supposition — that savages possessed only the mere rudiments of the faculty, such as their ability to count, sometimes up to ten, but with an utter inability

to perform the very simplest processes of arithmetic or of geometry — and inquire how this rudimentary faculty became rapidly developed into that of a Newton, a La Place, a Gauss, or a Cayley. We will admit that there is every possible gradation between these extremes, and that there has been perfect continuity in the development of the faculty; but we ask, What motive power caused its development?

It must be remembered we are here dealing solely with the capability of the Darwinian theory to account for the origin of the *mind*, as well as it accounts for the origin of the *body* of man, and we must, therefore, recall the essential features of that theory. These are, the preservation of useful variations in the struggle for life; that no creature can be improved beyond its necessities for the time being; that the law acts by life and death, and by the survival of the fittest. We have to ask, therefore, what relation the successive stages of improvement of the mathematical faculty had to the life or death of its possessors; to the struggles of tribe with tribe, or nation with nation; or to the ultimate survival of one race and the extinction of another. If it cannot possibly have had any such effects, then it cannot have been produced by natural selection.

It is evident that in the struggles of savage man with the elements and with wild beasts, or of tribe with tribe, this faculty can have had no influence. It had nothing to do with the early migrations of man, or with the conquest and extermination of weaker by more powerful peoples. The Greeks did not successfully resist the Persian invaders by any aid from their few mathematicians, but by military training, patriotism, and self-sacrifice. The barbarous conquerors of the East, Timurlane and Gengkhis Khan, did not owe their success to any superiority of intellect or of mathematical faculty in themselves or their followers. Even if the great conquests of the Romans were, in part, due to their systematic military organization, and to their skill in making roads and encampments, which may, perhaps, be imputed to some exercise of the mathematical faculty, that did not prevent them from being conquered in turn by barbarians, in whom it

was almost entirely absent. And if we take the most civilized peoples of the ancient world — the Hindus, the Arabs, the Greeks, and the Romans, all of whom had some amount of mathematical talent — we find that it is not these, but the descendants of the barbarians of those days — the Celts, the Teutons, and the Slavs — who have proved themselves the fittest to survive in the great struggle of races, although we cannot trace their steadily growing success during past centuries either to the possession of any exceptional mathematical faculty or to its exercise. They have indeed proved themselves, to-day, to be possessed of a marvelous endowment of the mathematical faculty; but their success at home and abroad, as colonists or as conquerors, as individuals or as nations, can in no way be traced to this faculty, since they were almost the last who devoted themselves to its exercise. We conclude, then, that the present gigantic development of the mathematical faculty is wholly unexplained by the theory of natural selection, and must be due to some altogether distinct cause.

These distinctively human faculties follow very closely the lines of the mathematical faculty in their progressive development, and serve to enforce the same argument. Among the lower savages music, as we understand it, hardly exists, though they all delight in rude musical sounds, as of drums, tom-toms, or gongs; and they also sing in monotonous chants. Almost exactly as they advance in general intellect, and in the arts of social life, their appreciation of music appears to rise in proportion; and we find among them rude stringed instruments and whistles, till, in Java, we have regular bands of skilled performers, probably the successors of Hindu musicians of the age before the Mohammedan conquest. The Egyptians are believed to have been the earliest musicians, and from them the Jews and the Greeks, no doubt, derived their knowledge of the art; but it seems to be admitted that neither the latter nor the Romans knew anything of harmony or of the essential features of modern music. Till the fifteenth century little progress appears to have been made in the science or the practice of music; but

since that era it has advanced with marvelous rapidity, its progress being curiously parallel with that of mathematics, inasmuch as great musical geniuses appeared suddenly among different nations, equal in their possession of this special faculty to any that have since arisen.

As with the mathematical, so with the musical faculty, it is impossible to trace any connection between its possession and survival in the struggle for existence. It seems to have arisen as a *result* of social and intellectual advancement, not as a *cause;* and there is some evidence that it is latent in the lower races, since under European training native military bands have been formed in many parts of the world, which have been able to perform creditably the best modern music.

The artistic faculty has run a somewhat different course, though analogous to that of the faculties already discussed. Most savages exhibit some rudiments of it, either in drawing or carving human or animal figures; but, almost without exception, these figures are rude and such as would be executed by the ordinary inartistic child. In fact, modern savages are, in this respect, hardly equal to those prehistoric men who represented the mammoth and the reindeer on pieces of horn or bone. With any advance in the arts of social life, we have a corresponding advance in artistic skill and taste, rising very high in the art of Japan and India, but culminating in the marvelous sculpture of the best period of Grecian history. In the Middle Ages art was chiefly manifested in ecclesiastical architecture and the illumination of manuscripts, but from the thirteenth to the fifteenth centuries pictorial art revived in Italy and attained to a degree of perfection which has never been surpassed. This revival was followed closely by the schools of Germany, the Netherlands, Spain, France, and England, showing that the true artistic faculty belonged to no one nation, but was fairly distributed among the various European races.

These several developments of the artistic faculty, whether manifested in sculpture, painting, or architecture, are evidently outgrowths of the human intellect which have no immediate

influence on the survival of individuals or of tribes, or on the success of nations in their struggles for supremacy or for existence. The glorious art of Greece did not prevent the nation from falling under the sway of the less advanced Roman; while we ourselves, among whom art was the latest to arise, have taken the lead in the colonization of the world, thus proving our mixed race to be the fittest to survive.

The law of Natural Selection or the survival of the fittest is, as its name implies, a rigid law, which acts by the life or death of the individuals submitted to its action. From its very nature it can act only on useful or hurtful characteristics, eliminating the latter and keeping up the former to a fairly general level of efficiency. Hence it necessarily follows that the characters developed by its means will be present in all the individuals of a species, and, though varying, will not vary very widely from a common standard. The amount of variation we found, in our third chapter, to be about one fifth or one sixth of the mean value — that is, if the mean value were taken at 100, the variations would reach from 80 to 120, or somewhat more, if very large numbers were compared. In accordance with this law we find that all those characters in man which were certainly essential to him during his early stages of development exist in all savages with some approach to equality. In the speed of running, in bodily strength, in skill with weapons, in acuteness of vision, or in power of following a trail, all are fairly proficient, and the differences of endowment do not probably exceed the limits of variation in animals above referred to. So, in animal instinct or intelligence, we find the same general level of development. Every wren makes a fairly good nest like its fellows; every fox has an average amount of the sagacity of its race; while all the higher birds and mammals have the necessary affections and instincts needful for the protection and bringing up of their offspring.

But in those specially developed faculties of civilized man which we have been considering, the case is very different. They exist only in a small proportion of individuals, while the

difference of capacity between these favored individuals and the average of mankind is enormous. Taking first the mathematical faculty, probably fewer than one in a hundred really possess it, the great bulk of the population having no natural ability for the study, or feeling the slightest interest in it. And if we attempt to measure the amount of variation in the faculty itself between a first-class mathematician and the ordinary run of people who find any kind of calculation confusing and altogether devoid of interest, it is probable that the former could not be estimated at less than a hundred times the latter, and perhaps a thousand times would more nearly measure the difference between them.

The artistic faculty appears to agree pretty closely with the mathematical in its frequency. The boys and girls who, going beyond the mere conventional designs of children, draw what they *see*, not what they *know* to be the shape of things; who naturally sketch in perspective, because it is thus they see objects; who see, and represent in their sketches, the light and shade as well as the mere outlines of objects; and who can draw recognizable sketches of every one they know, are certainly very few compared with those who are totally incapable of anything of the kind. From some inquiries I have made in schools, and from my own observation, I believe that those who are endowed with this natural artistic talent do not exceed, even if they come up to, one per cent of the whole population.

The variations in the amount of artistic faculty are certainly very great, even if we do not take the extremes. The gradations of power between the ordinary man or woman "who does not draw," and whose attempts at representing any object, animate or inanimate, would be laughable, and the average good artist who, with a few bold strokes, can produce a recognizable and even effective sketch of a landscape, a street, or an animal, are very numerous; and we can hardly measure the difference between them at less than fifty or a hundred fold.

The musical faculty is undoubtedly, in its lower forms, less uncommon than either of the preceding, but it still differs essen-

tially from the necessary or useful faculties in that it is almost entirely wanting in one half even of civilized men. For every person who draws, as it were instinctively, there are probably five or ten who sing or play without having been taught and from mere innate love and perception of melody and harmony.[1] On the other hand, there are probably about as many who seem absolutely deficient in musical perception, who take little pleasure in it, who cannot perceive discords or remember tunes, and who could not learn to sing or play with any amount of study. The gradations, too, are here quite as great as in mathematics or pictorial art, and the special faculty of the great musical composer must be reckoned many hundreds or perhaps thousands of times greater than that of the ordinary "unmusical" person above referred to.

It appears then, that, both on account of the limited number of persons gifted with the mathematical, the artistic, or the musical faculty, as well as from the enormous variations in its development, these mental powers differ widely from those which are essential to man, and are, for the most part, common to him and the lower animals; and that they could not, therefore, possibly have been developed in him by means of the law of natural selection.

We have thus shown, by two distinct lines of argument, that faculties are developed in civilized man which, both in their mode of origin, their function, and their variations, are altogether distinct from those other characters and faculties which are essential to him, and which have been brought to their actual state of efficiency by the necessities of his existence. And besides the three which have been specially referred to, there are others which evidently belong to the same class. Such is the metaphysical faculty, which enables us to form abstract conceptions of a kind the most remote from all practical applications, to discuss the ultimate causes of things, the nature and qualities of matter, motion, and force, of space and time, of cause and

[1] I am informed, however, by a music master in a large school that only about one per cent have real or decided musical talent, corresponding curiously with the estimate of the mathematicians.

effect, of will and conscience. Speculations on these abstract and difficult questions are impossible to savages, who seem to have no mental faculty enabling them to grasp the essential ideas or conceptions; yet whenever any race attains to civilization, and comprises a body of people who, whether as priests or philosophers, are relieved from the necessity of labor or of taking an active part in war or government, the metaphysical faculty appears to spring suddenly into existence, although, like the other faculties we have referred to, it is always confined to a very limited proportion of the population.

In the same class we may place the peculiar faculty of wit and humor, an altogether natural gift whose development appears to be parallel with that of the other exceptional faculties. Like them, it is almost unknown among savages, but appears more or less frequently as civilization advances and the interests of life become more numerous and more complex. Like them, too, it is altogether removed from utility in the struggle for life, and appears sporadically in a very small percentage of the population; the majority being, as is well known, totally unable to say a witty thing or make a pun even to save their lives.

The facts now set forth prove the existence of a number of mental faculties which either do not exist at all or exist in a very rudimentary condition in savages, but appear almost suddenly and in perfect development in the higher civilized races. These same faculties are further characterized by their sporadic character, being well developed only in a very small proportion of the community; and by the enormous amount of variation in their development, the higher manifestations of them being many times — perhaps a hundred or a thousand times — stronger than the lower. Each of these characteristics is totally inconsistent with any action of the law of natural selection in the production of the faculties referred to; and the facts, taken in their entirety, compel us to recognize some origin for them wholly distinct from that which has served to account for the animal characteristics — whether bodily or mental — of man.

The special faculties we have been discussing clearly point to the existence in man of something which he has not derived from his animal progenitors — something which we may best refer to as being of a spiritual essence or nature, capable of progressive development under favorable conditions. On the hypothesis of this spiritual nature, superadded to the animal nature of man, we are able to understand much that is otherwise mysterious or unintelligible in regard to him, especially the enormous influence of ideas, principles, and beliefs over his whole life and actions. Thus alone we can understand the constancy of the martyr, the unselfishness of the philanthropist, the devotion of the patriot, the enthusiasm of the artist, and the resolute and persevering search of the scientific worker after nature's secrets. Thus we may perceive that the love of truth, the delight in beauty, the passion for justice, and the thrill of exultation with which we hear of any act of courageous self-sacrifice, are the workings within us of a higher nature which has not been developed by means of the struggle for material existence.

It will, no doubt, be urged that the admitted continuity of man's progress from the brute does not admit of the introduction of new causes, and that we have no evidence of the sudden change of nature which such introduction would bring about. The fallacy as to new causes involving any breach of continuity, or any sudden or abrupt change, in the effects, has already been shown; but we will further point out that there are at least three stages in the development of the organic world when some new cause or power must necessarily have come into action.

The first stage is the change from inorganic to organic, when the earliest vegetable cell, or the living protoplasm out of which it arose, first appeared. This is often imputed to a mere increase of complexity of chemical compounds; but increase of complexity, with consequent instability, even if we admit that it may have produced protoplasm as a chemical compound, could certainly not have produced *living* protoplasm — protoplasm which has the power of growth and of reproduction, and of that continuous process of development which has resulted in the

marvelous variety and complex organization of the whole vegetable kingdom. There is in all this something quite beyond and apart from chemical changes, however complex; and it has been well said that the first vegetable cell was a new thing in the world, possessing altogether new powers — that of extracting and fixing carbon from the carbon dioxide of the atmosphere, that of indefinite reproduction, and, still more marvelous, the power of variation and of reproducing those variations, till endless complications of structure and varieties of form have been the result. Here, then, we have indications of a new power at work, which we may term *vitality*, since it gives to certain forms of matter all those characters and properties which constitute Life.

The next stage is still more marvelous, still more completely beyond all possibility of explanation by matter, its laws and forces. It is the introduction of sensation or consciousness, constituting the fundamental distinction between the animal and vegetable kingdoms. Here all idea of mere complication of structure producing the result is out of the question. We feel it to be altogether preposterous to assume that at a certain stage of complexity of atomic constitution, and as a necessary result of that complexity alone, an *ego* should start into existence, a thing that *feels*, that is *conscious* of its own existence. Here we have the certainty that something new has arisen, a being whose nascent consciousness has gone on increasing in power and definiteness till it has culminated in the higher animals. No verbal explanation or attempt at explanation — such as the statement that life is the result of the molecular forces of the protoplasm, or that the whole existing organic universe from the amœba up to man was latent in the fire-mist from which the solar system was developed — can afford any mental satisfaction, or help us in any way to a solution of the mystery.

The third stage is, as we have seen, the existence in man of a number of his most characteristic and noblest faculties, those which raise him furthest above the brutes and open up possibilities of almost indefinite advancement. These faculties could not possibly have been developed by means of the same laws

which have determined the progressive development of the organic world in general, and also of man's physical organism.[1]

These three distinct stages of progress from the inorganic world of matter and motion up to man, point clearly to an unseen universe — to a world of spirit, to which the world of matter is altogether subordinate. To this spiritual world we may refer the marvelously complex forces which we know as gravitation, cohesion, chemical force, radiant force, and electricity, without which the material universe could not exist for a moment in its present form, and perhaps not at all, since without these forces, and perhaps others which may be termed atomic, it is doubtful whether matter itself could have any existence. And still more surely can we refer to it those progressive manifestations of Life in the vegetable, the animal, and man — which we may classify as unconscious, conscious, and intellectual life, — and which probably depend upon different degrees of spiritual influx. I have already shown that this involves no necessary infraction of the law of continuity in physical or mental evolution; whence it follows that any difficulty we may find in discriminating the inorganic from the organic, the lower vegetable from the lower animal organisms, or the higher animals from the lowest types of man, has no bearing at all upon the question. This is to be decided by showing that a change in essential nature (due, probably, to causes of a higher order than those of the material universe) took place at the several stages of progress which I have indicated; a change which may be none the less real because absolutely imperceptible at its point of origin, as is the change that takes place in the curve in which a body is moving when the application of some new force causes the curve to be slightly altered.

Those who admit my interpretation of the evidence now adduced — strictly scientific evidence in its appeal to facts which are clearly what ought *not* to be on the materialistic theory — will

[1] For an earlier discussion of this subject, with some wider applications, see the author's *Contributions to the Theory of Natural Selection*, chap. x.

be able to accept the spiritual nature of man, as not in any way inconsistent with the theory of evolution, but as dependent on those fundamental laws and causes which furnish the very materials for evolution to work with. They will also be relieved from the crushing mental burden imposed upon those who — maintaining that we, in common with the rest of nature, are but products of the blind eternal forces of the universe, and believing also that the time must come when the sun will lose his heat and all life on the earth necessarily cease — have to contemplate a not very distant future in which all this glorious earth — which for untold millions of years has been slowly developing forms of life and beauty to culminate at last in man — shall be as if it had never existed; who are compelled to suppose that all the slow growths of our race struggling towards a higher life, all the agony of martyrs, all the groans of victims, all the evil and misery and undeserved suffering of the ages, all the struggles for freedom, all the efforts towards justice, all the aspirations for virtue and the well-being of humanity, shall absolutely vanish, and, "like the baseless fabric of a vision, leave not a wrack behind."

As contrasted with this hopeless and soul-deadening belief, we, who accept the existence of a spirtual world, can look upon the universe as a grand consistent whole adapted in all its parts to the development of spiritual beings capable of indefinite life and perfectibility. To us, the whole purpose, the only *raison d'être* of the world — with all its complexities of physical structure, with its grand geological progress, the slow evolution of the vegetable and animal kingdoms, and the ultimate appearance of man — was the development of the human spirit in association with the human body. From the fact that the spirit of man — the man himself — *is* so developed, we may well believe that this is the only, or at least the best, way for its development; and we may even see in what is usually termed "evil" on the earth, one of the most efficient means of its growth. For we know that the noblest faculties of man are strengthened and perfected by struggle and effort; it is by unceasing warfare against physical evils and in the midst of difficulty and danger that energy, cour-

age, self-reliance, and industry have become the common qualities of the northern races; it is by the battle with moral evil in all its hydra-headed forms, that the still nobler qualities of justice and mercy and humanity and self-sacrifice have been steadily increasing in the world. Beings thus trained and strengthened by their surroundings, and possessing latent faculties capable of such noble development, are surely destined for a higher and more permanent existence; and we may confidently believe with our greatest living poet —

> That life is not as idle ore,
> But iron dug from central gloom,
> And heated hot with burning fears,
> And dipt in baths of hissing tears,
> And batter'd with the shocks of doom
> To shape and use.[1]

We thus find that the Darwinian theory, even when carried out to its extreme logical conclusion, not only does not oppose, but lends a decided support to, a belief in the spiritual nature of man. It shows us how man's body may have been developed from that of a lower animal form under the law of natural selection; but it also teaches us that we possess intellectual and moral faculties which could not have been so developed, but must have had another origin; and for this origin we can only find an adequate cause in the unseen universe of Spirit.

[1] Tennyson's *In Memoriam*, cxviii — *Editors.*

X

THE BELFAST ADDRESS

John Tyndall

[John Tyndall (1820–1893) holds a position of great fame and importance in the field of investigative science. In his youth he was largely self-educated, and held early positions as surveyor, engineer, and teacher of mathematics. His advanced studies were pursued at Marburg, where he worked with tremendous energy, but under straitened financial circumstances. Tyndall's general note probably dated from the period of the publication of his *Glaciers of the Alps*, 1857–1859, which represented the results of an investigative excursion to Switzerland in company with Huxley. From this time on, he rapidly gained popularity as a writer and lecturer on scientific topics. It is a mistake, however, to regard Tyndall as merely a popularizer of science, for his investigations, which were both extensive and minute, are numbered among the most important contributions of his century to geological, chemical, meteorological, and physical science.

The so-called *Belfast Address* was delivered as Tyndall's inaugural address at the meeting of the British Association for the Advancement of Science at Belfast in 1874, and was published in the *Popular Science Monthly* in the same year. This address, an imposing reminder that science and literary art are not inevitably unrelated, reviews the history of ancient and modern efforts to develop an explanation of physical and spiritual existence from the evidence of scientific observation, as opposed to the assumptions of religious tradition. As a frank challenge to the adherents of a literal interpretation of biblical tradition, the *Belfast Address* brought down upon Tyndall the full blast of polemical fire that had been smoldering angrily since 1859, when the publication of Darwin's *Origin of Species* first brought forward conclusive justification for the free criticism of dogmatic theology. Tyndall's position in this controversy may be found in his *Fragments of Science*.]

An impulse inherent in primeval man turned his thoughts and questionings betimes toward the sources of natural phenomena. The same impulse, inherited and intensified, is the spur of scientific action to-day. Determined by it, by a process of abstraction

from experience we form physical theories which lie beyond the pale of experience, but which satisfy the desire of the mind to see every natural occurrence resting upon a cause. In forming their notions of the origin of things, our earliest historic (and doubtless, we might add, our prehistoric) ancestors pursued, as far as their intelligence permitted, the same course. They also fell back upon experience, but with this difference — that the particular experiences which furnished the weft and woof of their theories were drawn, not from the study of nature, but from what lay much closer to them, the observation of men. Their theories accordingly took an anthropomorphic form. To supersensual beings, which, "however potent and invisible, were nothing but a species of human creatures, perhaps raised from among mankind, and retaining all human passions and appetites," [1] were handed over the rule and governance of natural phenomena.

Tested by observation and reflection, these early notions failed in the long run to satisfy the more penetrating intellects of our race. Far in the depths of history we find men of exceptional power differentiating themselves from the crowd, rejecting these anthropomorphic notions, and seeking to connect natural phenomena with their physical principles. But long prior to these purer effects of the understanding, the merchant had been abroad, and rendered the philosopher possible; commerce had been developed, wealth amassed, leisure for travel and for speculation secured, while races educated under different conditions, and therefore differently informed and endowed, had been stimulated and sharpened by mutual contact. In those regions where the commercial aristocracy of ancient Greece mingled with its Eastern neighbors, the sciences were born, being nurtured and developed by free-thinking and courageous men. The state of things to be displaced may be gathered from a passage of Euripides quoted by Hume. "There is nothing in the world; no glory, no prosperity. The gods toss all into confusion; mix everything with its reverse, that all of us, from our ignorance and

[1] Hume, *Natural History of Religion.*

uncertainty, may pay them the more worship and reverence." Now, as science demands the radical extirpation of caprice, and the absolute reliance upon law in nature, there grew with the growth of scientific notions a desire and determination to sweep from the field of theory this mob of gods and demons, and to place natural phenomena on a basis more congruent with themselves.

The problem which had been previously approached from above was now attacked from below; theoretic effort passed from the super- to the sub-sensible. It was felt that to construct the universe in idea it was necessary to have some notion of its constituent parts — of what Lucretius subsequently called the "First Beginnings." Abstracting again from experience, the leaders of scientific speculation reached at length the pregnant doctrine of atoms and molecules, the latest developments of which were set forth with such power and clearness at the last meeting of the British Association. Thought, no doubt, had long hovered about this doctrine before it attained the precision and completeness which it assumed in the mind of Democritus,[1] a philosopher who may well for a moment arrest our attention. "Few great men," says Lange, in his excellent *History of Materialism*, a work to the spirit and the letter of which I am equally indebted, "have been so despitefully used by history as Democritus. In the distorted images sent down to us through unscientific traditions there remains of him almost nothing but the name of the 'laughing philosopher,' while figures of immeasurably smaller significance spread themselves at full length before us." Lange speaks of Bacon's high appreciation of Democritus — for ample illustrations of which I am indebted to my excellent friend Mr. Spedding, the learned editor and biographer of Bacon. It is evident, indeed, that Bacon considered Democritus to be a man of weightier metal than either Plato or Aristotle, though their philosophy "was noised and celebrated in the schools, amid the din and pomp of professors." It was not they, but Genseric and Attila and the barbarians, who destroyed the

[1] Born 460 B.C.

atomic philosophy. "For at a time when all human learning had suffered shipwreck, these planks of Aristotelian and Platonic philosophy, as being of a lighter and more inflated substance, were preserved and come down to us, while things more solid sank and almost passed into oblivion."

The principles enunciated by Democritus reveal his uncompromising antagonism to those who deduced the phenomena of nature from the caprices of the gods. They are briefly these: 1. From nothing comes nothing. Nothing that exists can be destroyed. All changes are due to the combination and separation of molecules. 2. Nothing happens by chance. Every occurrence has its cause from which it follows by necessity. 3. The only existing things are the atoms and empty space; all else is mere opinion. 4. The atoms are infinite in number, and infinitely various in form; they strike together, and the lateral motions and whirlings which thus arise are the beginnings of worlds. 5. The varieties of all things depend upon the varieties of their atoms, in number, size, and aggregation. 6. The soul consists of free, smooth, round atoms, like those of fire. These are the most mobile of all. They interpenetrate the whole body, and in their motions the phenomena of life arise. Thus the atoms of Democritus are individually without sensation; they combine in obedience to mechanical laws; and not only organic forms, but the phenomena of sensation and thought, are also the result of their combination.

That great enigma, "the exquisite adaptation of one part of an organism to another part, and to the conditions of life," more especially the construction of the human body, Democritus made no attempt to solve. Empedocles, a man of more fiery and poetic nature, introduced the notion of love and hate among the atoms to account for their combination and separation. Noticing this gap in the doctrine of Democritus, he struck in with the penetrating thought, linked, however, with some wild speculation, that it lay in the very nature of those combinations which were suited to their ends (in other words, in harmony with their environment) to maintain themselves, while unfit combina-

tions, having no proper habitat, must rapidly disappear. Thus more than 2000 years ago the doctrine of the "survival of the fittest," which in our day, not on the basis of vague conjecture, but of positive knowledge, has been raised to such extraordinary significance, had received at all events partial enunciation.[1]

Epicurus,[2] said to be the son of a poor schoolmaster at Samos, is the next dominant figure in the history of the atomic philosophy. He mastered the writings of Democritus, heard lectures in Athens, returned to Samos, and subsequently wandered through various countries. He finally returned to Athens, where he bought a garden, and surrounded himself by pupils, in the midst of whom he lived a pure and serene life, and died a peaceful death. His philosophy was almost identical with that of Democritus; but he never quoted either friend or foe. One main object of Epicurus was to free the world from superstition and the fear of death. Death he treated with indifference. It merely robs us of sensation. As long as we are, death is not; and when death is, we are not. Life has no more evil for him who has made up his mind that it is no evil not to live. He adored the gods, but not in the ordinary fashion. The idea of divine power, properly purified, he thought an elevating one. Still he taught, "Not he is godless who rejects the gods of the crowd, but rather he who accepts them." The gods were to him eternal and immortal beings, whose blessedness excluded every thought of care or occupation of any kind. Nature pursues her course in accordance with everlasting laws, the gods never interfering. They haunt

> The lucid interspace of world and world
> Where never creeps a cloud or moves a wind,
> Nor ever falls the least white star of snow,
> Nor ever lowest roll of thunder moans,
> Nor sound of human sorrow mounts to mar
> Their sacred everlasting calm.[3]

[1] Lange, *History of Materialism*, 2d edit., p. 23.
[2] Born 342 B.C.
[3] Tennyson's *Lucretius*.

Lange considers the relation of Epicurus to the gods subjective; the indication probably of an ethical requirement of his own nature. We cannot read history with open eyes, or study human nature to its depths, and fail to discern such a requirement. Man never has been and he never will be satisfied with the operations and products of the understanding alone; hence physical science cannot cover all the demands of his nature. But the history of the efforts made to satisfy these demands might be broadly described as a history of errors — the error consisting in ascribing fixity to that which is fluent, which varies as we vary, being gross when we are gross, and becoming, as our capacities widen, more abstract and sublime. On one great point the mind of Epicurus was at peace. He neither sought nor expected, here or hereafter, any personal profit from his relation to the gods. And it is assuredly a fact that loftiness and serenity of thought may be promoted by conceptions which involve no idea of profit of this kind. "Did I not believe," said a great man to me once, "that an Intelligence is at the heart of things, my life on earth would be intolerable." The utterer of these words is not, in my opinion, rendered less noble, but more noble, by the fact that it was the need of ethical harmony here, and not the thought of personal profit hereafter, that prompted his observation.

A century and a half after the death of Epicurus, Lucretius [1] wrote his great poem, "On the Nature of Things," in which he, a Roman, developed with extraordinary ardor the philosophy of his Greek predecessor. He wishes to win over his friend Memnius to the school of Epicurus; and although he has no rewards in a future life to offer, although his object appears to be a purely negative one, he addresses his friend with the heat of an apostle. His object, like that of his great forerunner, is the destruction of superstition; and considering that men trembled before every natural event as a direct monition from the gods, and that everlasting torture was also in prospect, the freedom aimed at by Lucretius might perhaps be deemed a positive good. "This

[1] Born 99 B.C.

terror," he says, "and darkness of mind must be dispelled, not by the rays of the sun and glittering shafts of day, but by the aspect and the law of nature." He refutes the notion that anything can come out of nothing, or that that which is once begotten can be recalled to nothing. The first beginnings, the atoms, are indestructible, and into them all things can be dissolved at last. Bodies are partly atoms and partly combinations of atoms; but the atoms nothing can quench. They are strong in solid singleness, and by their denser combination all things can be closely packed and exhibit enduring strength. He denies that matter is infinitely divisible. We come at length to the atoms, without which, as an imperishable substratum, all order in the generation and development of things would be destroyed.

The mechanical shock of the atoms being in his view the all-sufficient cause of things, he combats the notion that the constitution of nature has been in any way determined by intelligent design. The interaction of the atoms throughout infinite time rendered all manner of combinations possible. Of these the fit ones persisted, while the unfit ones disappeared. Not after sage deliberation did the atoms station themselves in their right places, nor did they bargain what motions they should assume. From all eternity they have been driven together, and, after trying motions and unions of every kind, they fell at length into the arrangements out of which this system of things has been formed. His grand conception of the atoms falling silently through immeasurable ranges of space and time suggested the nebular hypothesis[1] to Kant, its first propounder. "If you will apprehend and keep in mind these things, nature, free at once, and rid of her haughty lords, is seen to do all things spontaneously, of herself, without the meddling of the gods."[2]

[1] The theory that the stars and the planetary bodies have been evolved from diffused nebulous matter. — *Editors*.

[2] Monro's translation [of Lucretius]. In his criticism of this work (*Contemporary Review*, 1867) Dr. Hayman does not appear to be aware of the really sound and subtile observations on which the reasoning of Lucretius, though erroneous, sometimes rests.

During the centuries between the first of these three philosophers and the last, the human intellect was active in other fields than theirs. The Sophists had run through their career. At Athens had appeared the three men, Socrates, Plato, and Aristotle, whose yoke remains to some extent unbroken to the present hour. Within this period also the school of Alexandria was founded, Euclid wrote his *Elements*, and he and others made some advance in optics. Archimedes had propounded the theory of the lever and the principles of hydrostatics. Pythagoras had made his experiments on the harmonic intervals, while astronomy was immensely enriched by the discoveries of Hipparchus, who was followed by the historically more celebrated Ptolemy. Anatomy had been made the basis of scientific medicine; and it is said by Draper [1] that vivisection then began. In fact, the science of ancient Greece had already cleared the world of the fantastic images of divinities operating capriciously through natural phenomena. It had shaken itself free from that fruitless scrutiny "by the internal light of the mind alone," which had vainly sought to transcend experience and reach a knowledge of ultimate causes. Instead of accidental observation, it had introduced observation with a purpose; instruments were employed to aid the senses; and scientific method was rendered in a great measure complete by the union of induction and experiment.

What, then, stopped its victorious advance? Why was the scientific intellect compelled, like an exhausted soil, to lie fallow for nearly two millenniums before it could regather the elements necessary to its fertility and strength? Bacon has already let us know one cause; Whewell ascribes this stationary period to four causes — obscurity of thought, servility, intolerance of disposition, enthusiasm of temper; and he gives striking examples of each.[2] But these characteristics must have had their causes, which lay in the circumstances of the time. Rome and the other cities of the empire had fallen into moral putre-

[1] *History of the Intellectual Development of Europe*, p. 295.

[2] *History of the Inductive Sciences*, vol. i.

faction. Christianity had appeared, offering the Gospel to the poor, and, by moderation if not asceticism of life, practically protesting against the profligacy of the age. The sufferings of the early Christians, and the extraordinary exaltation of mind which enabled them to triumph over the diabolical tortures to which they were subjected,[1] must have left traces not easily effaced. They scorned the earth, in view of that "building of God, that house not made with hands, eternal in the heavens." The Scriptures which ministered to their spiritual needs were also the measure of their science. When, for example, the celebrated question of antipodes came to be discussed, the Bible was with many the ultimate court of appeal. Augustine, who flourished A.D. 400, would not deny the rotundity of the earth, but he would deny the possible existence of inhabitants at the other side, "because no such race is recorded in Scripture among the descendants of Adam." Archbishop Boniface was shocked at the assumption of a "world of human beings out of the reach of the means of salvation." Thus reined in, science was not likely to make much progress. Later on, the political and theological strife between the Church and civil governments, so powerfully depicted by Draper, must have done much to stifle investigation.

Whewell makes many wise and brave remarks regarding the spirit of the Middle Ages. It was a menial spirit. The seekers after natural knowledge had forsaken that fountain of living waters, the direct appeal to nature by observation and experiment, and had given themselves up to the remanipulation of the notions of their predecessors. It was a time when thought had become abject, and when the acceptance of mere authority led, as it always does in science, to intellectual death. Natural events, instead of being traced to physical, were referred to moral causes, while an exercise of the fantasy, almost as degrading as the Spiritualism of the present day, took the place of scientific speculation. Then came the mysticism of the Middle Ages, magic, alchemy, the Neoplatonic philoso-

[1] Depicted with terrible vividness in Rénan's *Antichrist*.

phy,[1] with its visionary though sublime attractions, which caused men to look with shame upon their own bodies as hindrances to the absorption of the creature in the blessedness of the Creator. Finally came the scholastic philosophy, a fusion, according to Lange, of the least mature notions of Aristotle with the Christianity of the West. Intellectual immobility was the result. As a traveler without a compass in a fog may wander long, imagining he is making way, and find himself, after hours of toil, at his starting-point, so the schoolmen, having tied and untied the same knots, and formed and dissipated the same clouds, found themselves at the end of centuries in their old position.

With regard to the influence wielded by Aristotle in the Middle Ages, and which, though to a less extent, he still wields, I would ask permission to make one remark. When the human mind has achieved greatness and given evidence of extraordinary power in any domain, there is a tendency to credit it with similar power in all other domains. Thus theologians have found comfort and assurance in the thought that Newton dealt with the question of revelation, forgetful of the fact that the very devotion of his powers, through all the best years of his life, to a totally different class of ideas, not to speak of any natural disqualification, tended to render him less instead of more competent to deal with theological and historic questions. Goethe, starting from his established greatness as a poet, and indeed from his positive discoveries in natural history, produced a profound impression among the painters of Germany when he published his *Farbenlehre*, in which he endeavored to overthrow Newton's theory of colors. This theory he deemed so obviously absurd that he considered its author a charlatan, and attacked him with a corresponding vehemence of language. In the domain of natural history Goethe had made really considerable discoveries; and we have high authority for assuming that had he devoted himself wholly to that side of science, he might have reached in it an eminence comparable with that which he

[1] Neoplatonism was an Alexandrian modification of Plato's philosophy influenced in part by Christian teachings. — *Editors.*

attained as a poet. In sharpness of observation, in the detection of analogies, however apparently remote, in the classification and organization of facts according to the analogies discerned, Goethe possessed extraordinary powers. These elements of scientific inquiry fall in with the discipline of the poet. But, on the other hand, a mind thus richly endowed in the direction of natural history may be almost shorn of endowment as regards the more strictly called physical and mechanical sciences. Goethe was in this condition. He could not formulate distinct mechanical conceptions; he could not see the force of mechanical reasoning; and in regions where such reasoning reigns supreme he became a mere *ignis fatuus*[1] to those who followed him.

I have sometimes permitted myself to compare Aristotle with Goethe; to credit the Stagirite with an almost superhuman power of amassing and systematizing facts, but to consider him fatally defective on that side of the mind in respect to which incompleteness has been justly ascribed to Goethe. Whewell refers the errors of Aristotle, not to a neglect of facts, but to "a neglect of the idea appropriate to the facts; the idea of mechanical cause, which is force, and the substitution of vague or inapplicable notions, involving only relations of space or emotions of wonder." This is doubtless true; but the word "neglect" implies mere intellectual misdirection, whereas in Aristotle, as in Goethe, it was not, I believe, misdirection, but sheer natural incapacity, which lay at the root of his mistakes. As a physicist, Aristotle displayed what we should consider some of the worst attributes of a modern physical investigator — indistinctness of ideas, confusion of mind, and a confident use of language, which led to the delusive notion that he had really mastered his subject, while he as yet had failed to grasp even the elements of it. He put words in the place of things, subject in the place of object. He preached induction without practicing it, inverting the true order of inquiry by passing from the general to the particular, instead of from the particular to the general.

[1] Delusive influence. — *Editors.*

He made of the universe a closed sphere, in the center of which he fixed the earth, proving from general principles, to his own satisfaction and that of the world for nearly two thousand years, that no other universe was possible. His notions of motion were entirely unphysical. It was natural or unnatural, better or worse, calm or violent — no real mechanical conception regarding it lying at the bottom of his mind. He affirmed that a vacuum could not exist, and proved that if it did exist, motion in it would be impossible. He determined *à priori* how many species of animals must exist, and showed on general principles why animals must have such and such parts. When an eminent contemporary philosopher, who is far removed from errors of this kind, remembers these abuses of the *à priori* method, he will be able to make allowance for the jealousy of physicists as to the acceptance of so-called *à priori* truths. Aristotle's errors of detail were grave and numerous. He affirmed that only in man we had the beating of the heart, that the left side of the body was colder than the right, that men have more teeth than women, and that there is an empty space, not at the front, but at the back, of every man's head.

There is one essential quality in physical conceptions which was entirely wanting in those of Aristotle and his followers. I wish it could be expressed by a word untainted by its associations; it signifies a capability of being placed as a coherent picture before the mind. The Germans express the act of picturing by the word *vorstellen*, and the picture they call a *Vorstellung*. We have no word in English which comes nearer to our requirements than *imagination*, and, taken with its proper limitations, the word answers very well; but, as just intimated, it is tainted by its associations, and therefore objectionable to some minds. Compare, with reference to this capacity of mental presentation, the case of the Aristotelian who refers the ascent of water in a pump to Nature's abhorrence of a vacuum, with that of Pascal when he proposed to solve the question of atmospheric pressure by the ascent of the Puy de Dôme. In the one case the terms of the explanation refuse to fall into place as a

physical image; in the other the image is distinct, the fall and rise of the barometer being clearly figured as the balancing of two varying and opposing pressures.

During the drought of the Middle Ages in Christendom, the Arabian intellect, as forcibly shown by Draper, was active. With the intrusion of the Moors into Spain, cleanliness, order, learning, and refinement took the place of their opposites. When smitten with disease, the Christian peasant resorted to a shrine; the Moorish one to an instructed physician. The Arabs encouraged translations from the Greek philosophers, but not from the Greek poets. They turned in disgust "from the lewdness of our classical mythology, and denounced as an unpardonable blasphemy all connection between the impure Olympian Jove and the Most High God." Draper traces still further than Whewell the Arab elements in our scientific terms, and points out that the undergarment of ladies retains to this hour its Arab name. He gives examples of what Arabian men of science accomplished, dwelling particularly on Alhazen, who was the first to correct the Platonic notion that rays of light are emitted by the eye. He discovered atmospheric refraction, and points out that we see the sun and moon after they have set. He explains the enlargement of the sun and moon, and the shortening of the vertical diameters of both these bodies when near the horizon. He is aware that the atmosphere decreases in density with increase of height, and actually fixes its height at fifty-eight and one half miles. In the *Book of the Balance Wisdom*, he sets forth the connection between the weight of the atmosphere and its increasing density. He shows that a body will weigh differently in a rare and a dense atmosphere. He considers the force with which plunged bodies rise through heavier media. He understands the doctrine of the center of gravity, and applies it to the investigation of balances and steelyards. He recognizes gravity as a force, though he falls into the error of making it diminish at a distance, and of making it purely terrestrial. He knows the relation between the velocities, spaces, and times of falling bodies, and has distinct ideas of capillary attraction.

He improves the hydrometer. The determination of the densities of bodies as given by Alhazen approaches very closely to our own. "I join," says Draper, "in the pious prayer of Alhazen, 'that in the day of judgment the All-Merciful will take pity on the soul of Abur-Raihân, because he was the first of the race of men to construct a table of specific gravities.'" If all this be historic truth (and I have entire confidence in Dr. Draper), well may he "deplore the systematic manner in which the literature of Europe has contrived to put out of sight our scientific obligations to the Mohammedans." [1]

Toward the close of the stationary period, a word-weariness, if I may so express it, took more and more possession of men's minds. Christendom had become sick of the school philosophy and its verbal wastes, which led to no issue, but left the intellect in everlasting haze. Here and there was heard the voice of one impatiently crying in the wilderness, "Not unto Aristotle, not unto subtle hypotheses, not unto Church, Bible, or blind tradition, must we turn for a knowledge of the universe, but to the direct investigation of nature by observation and experiment." In 1543 the epoch-making work of Copernicus on the paths of the heavenly bodies appeared. The total crash of Aristotle's closed universe with the earth at its center followed as a consequence; and "the earth moves" became a kind of watchword among intellectual freemen. Copernicus was the Canon of the Church of Frauenburg, in the diocese of Ermeland. For three and thirty years he had withdrawn himself from the world and devoted himself to the consolidation of his great scheme of the solar system. He made its blocks eternal; and even to those who feared it and desired its overthrow, it was so obviously strong that they refrained from meddling with it. In the last year of the life of Copernicus his book appeared. It is said that the old man received a copy of it a few days before his death, and then departed in peace.

The Italian philosopher Giordano Bruno was one of the earliest converts to the new astronomy. Taking Lucretius

[1] *Intellectual Development of Europe*, p. 359.

as his exemplar, he revived the notion of the infinity of worlds; and, combining with it the doctrine of Copernicus, reached the sublime generalization that the fixed stars are suns, scattered numberless through space and accompanied by satellites, which bear the same relation to them as the earth does to our sun, or our moon to our earth. This was an expansion of transcendent import; but Bruno came closer than this to our present line of thought. Struck with the problem of the generation and maintenance of organisms, and duly pondering it, he came to the conclusion that nature in her productions does not imitate the technic of man. Her process is one of unraveling and unfolding. The infinity of forms under which matter appears was not imposed upon it by an external artificer; by its own intrinsic force and virtue it brings these forms forth. Matter is not the mere naked, empty *capacity* which philosophers have pictured her to be, but the universal mother, who brings forth all things as the fruit of her own womb.

This outspoken man was originally a Dominican monk. He was accused of heresy and had to fly, seeking refuge in Geneva, Paris, England, and Germany. In 1592 he fell into the hands of the Inquisition at Venice. He was imprisoned for many years, tried, degraded, excommunicated, and handed over to the civil power, with the request that he should be treated gently and "without the shedding of blood." This meant that he was to be burned; and burned accordingly he was, on February 16, 1600. To escape a similar fate, Galileo, thirty-three years afterward, abjured, upon his knees and with his hand on the Holy Gospels, the heliocentric doctrine.[1] After Galileo came Kepler, who from his German home defied the power beyond the Alps. He traced out from preëxisting observations the laws of planetary motion. The problem was thus prepared for Newton, who bound those empirical laws together by the principle of gravitation.

During the Middle Ages the doctrine of atoms had to all appearance vanished from discussion. In all probability it held its ground among sober-minded and thoughtful men, though

[1] The theory that the sun is the center of our planetary system. — *Editors.*

neither the Church nor the world was prepared to hear of it with tolerance. Once, in the year 1348, it received distinct expression. But retraction by compulsion immediately followed, and thus discouraged, it slumbered till the seventeenth century, when it was revived by a contemporary of Hobbes and Descartes, the Père Gassendi.

The analytic and synthetic tendencies of the human mind exhibit themselves throughout history, great writers ranging themselves sometimes on the one side, sometimes on the other. Men of lofty feelings, and minds open to the elevating impressions produced by nature as a whole, whose satisfaction, therefore, is rather ethical than logical, have leaned to the synthetic side; while the analytic harmonizes best with the more precise and more mechanical bias which seeks the satisfaction of the understanding. Some form of pantheism was usually adopted by the one, while a detached Creator, working more or less after the manner of men, was often assumed by the other.[1] Gassendi is hardly to be ranked with either. Having formerly acknowledged God as the first great cause, he immediately drops the idea, applies the known laws of mechanics to the atoms, and thence deduces all vital phenomena. God, who created earth and water, plants and animals, produced in the first place a definite number of atoms, which constituted the seed of all things. Then began that series of combinations and decompositions which goes on at the present day, and which will continue in the future. The principle of every change resides in matter. In artificial productions the moving principle is different from the material worked upon; but in nature the agent works within, being the most active and mobile part of the material itself. Thus this bold ecclesiastic, without incurring the censure of the Church or the world, contrives to outstrip Mr. Dar-

[1] Boyle's model of the universe was the Strasburg clock with an outside artificer. Goethe, on the other hand, sang

> "Ihm ziemt's die Welt im Innern zu bewegen,
> Natur in sich, sich in Natur zu *hegen*."

The same repugnance to the clockmaker conception is manifest in Carlyle.

win. The same cast of mind which caused him to detach the Creator from his universe led him also to detach the soul from the body, though to the body he ascribes an influence so large as to render the soul almost unnecessary. The aberrations of reason were in his view an affair of the material brain. Mental disease is brain disease; but then the immortal reason sits apart, and cannot be touched by the disease. The errors of madness are errors of the instrument, not of the performer.

It may be more than a mere result of education, connecting itself probably with the deeper mental structure of the two men, that the idea of Gassendi, above enunciated, is substantially the same as that expressed by Professor Clerk-Maxwell at the close of the very noble lecture delivered by him at Bradford last year. According to both philosophers, the atoms, if I understand aright, are the *prepared materials*, the "manufactured articles," which, formed by the skill of the Highest, produce by their subsequent interaction all the phenomena of the material world. There seems to be this difference, however, between Gassendi and Maxwell. The one *postulates*, the other *infers*, his first cause. In his manufactured articles, Professor Maxwell finds the basis of an induction which enables him to scale philosophic heights considered inaccessible by Kant, and to take the logical step from the atoms to their Maker.

The atomic doctrine, in whole or in part, was entertained by Bacon, Descartes, Hobbes, Locke, Newton, Boyle, and their successors, until the chemical law of multiple proportions enabled Dalton to confer upon it an entirely new significance. In our day there are secessions from the theory, but it still stands firm. Only a year or two ago Sir William Thomson, with characteristic penetration, sought to determine the sizes of the atoms, or rather to fix the limits between which their sizes lie; while only last year the discourses of Williamson and Maxwell illustrated the present hold of the doctrine upon the foremost scientific minds. What these atoms, self-moved and self-posited, can and cannot accomplish in relation to life, is at the present moment the subject of profound scientific thought. I doubt the

legitimacy of Maxwell's logic; but it is impossible not to feel the ethic glow with which his lecture concludes. There is, moreover, a Lucretian grandeur in his description of the steadfastness of the atoms: "Natural causes, as we know, are at work, which tend to modify, if they do not at length destroy, all the arrangements and dimensions of the earth and the whole solar system. But though in the course of ages catastrophes have occurred and may yet occur in the heavens, though ancient systems may be dissolved and new systems evolved out of their ruins, the molecules out of which these systems are built, the foundation stones of the material universe, remain unbroken and unworn."

Ninety years subsequent to Gassendi, the doctrine of bodily instruments, as it may be called, assumed immense importance in the hands of Bishop Butler, who, in his famous *Analogy of Religion*, developed from his own point of view, and with consummate sagacity, a similar idea. The bishop still influences superior minds; and it will repay us to dwell for a moment on his views. He draws the sharpest distinction between our real selves and our bodily instruments. He does not, as far as I remember, use the word soul, possibly because the term was so hackneyed in his day, as it had been for many generations previously. But he speaks of "living powers," "perceiving" or "percipient powers," "moving agents," "ourselves," in the same sense as we should employ the term soul. He dwells upon the fact that limbs may be removed and mortal diseases assail the body, while the mind, almost up to the moment of death, remains clear. He refers to sleep and to swoon, where the "living powers" are suspended, but not destroyed. He considers it quite as easy to conceive of an existence out of our bodies as in them; that we may animate a succession of bodies, the dissolution of all of them having no more tendency to dissolve our real selves, or "deprive us of living faculties — the faculties of perception and action — than the dissolution of any foreign matter which we are capable of receiving impressions from, or making use of, for the common occasions of life." This is the

key of the bishop's position: "Our organized bodies are no more a part of ourselves than any other matter around us." In proof of this, he calls attention to the use of glasses, which "prepare objects" for the "percipient power" exactly as the eye does. The eye itself is no more percipient than the glass, and is quite as much the instrument of the true self, and also as foreign to the true self, as the glass is. "And if we see with our eyes only in the same manner as we do with glasses, the like may justly be concluded from analogy of all our senses."

Lucretius, as you are aware, reached a precisely opposite conclusion; and it certainly would be interesting, if not profitable, to us all, to hear what he would or could urge in opposition to the reasoning of the bishop. As a brief discussion of the point will enable us to see the bearings of an important question, I will here permit a disciple of Lucretius to try the strength of the bishop's position, and then allow the bishop to retaliate, with the view of rolling back, if he can, the difficulty upon Lucretius. Each shall state his case fully and frankly; and you shall be umpire between them. The argument might proceed in this fashion:

"Subjected to the test of mental presentation (*Vorstellung*), your views, most honored prelate, would present to many minds a great, if not an insuperable, difficulty. You speak of 'living powers,' 'percipient or perceiving powers,' and 'ourselves;' but can you form a mental picture of any one of these apart from the organism through which it is supposed to act? Test yourself honestly, and see whether you possess any faculty that would enable you to form such a conception. The true self has a local habitation in each of us; thus localized, must it not possess a form? If so, what form? Have you ever for a moment realized it? When a leg is amputated, the body is divided into two parts; is the true self in both of them or in one? Thomas Aquinas might say in both; but not you, for you appeal to the consciousness associated with one of the two parts to prove that the other is foreign matter. Is consciousness, then, a necessary element of the true self? If so, what do you say to the case of the whole

body being deprived of consciousness? If not, then on what grounds do you deny any portion of the true self to the severed limb? It seems very singular that, from the beginning to the end of your admirable book (and no one admires its sober strength more than I do), you never once mention the brain or nervous system. You begin at one end of the body, and show that its parts may be removed without prejudice to the perceiving power. What if you begin at the other end, and remove, instead of the leg, the brain? The body, as before, is divided into two parts; but both are now in the same predicament, and neither can be appealed to to prove that the other is foreign matter. Or, instead of going so far as to remove the brain itself, let a certain portion of its bony covering be removed, and let a rhythmic series of pressure and relaxations of pressure be applied to the soft substance. At every pressure 'the faculties of perception and of action' vanish; at every relaxation of pressure they are restored. Where, during the intervals of pressure, is the perceiving power? I once had the discharge of a Leyden battery passed unexpectedly through me: I felt nothing, but was simply blotted out of conscious existence for a sensible interval. Where was my true self during that interval? Men who have recovered from lightning stroke have been much longer in the same state; and indeed in cases of ordinary concussion of the brain, days may elapse during which no experience is registered in consciousness. Where is the man himself during the period of insensibility? You may say that I beg the question when I assume the man to have been unconscious, that he was really conscious all the time, and has simply forgotten what had occurred to him. In reply to this, I can only say that no one need shrink from the worst tortures that superstition ever invented if only so felt and so remembered. I do not think your theory of instruments goes at all to the bottom of the matter. A telegraph operator has his instruments, by means of which he converses with the world; our bodies possess a nervous system, which plays a similar part between the perceiving powers and external things. Cut the wires of the operator, break his

battery, demagnetize his needle: by this means you certainly sever his connection with the world; but inasmuch as these are real instruments, their destruction does not touch the man who uses them. The operator survives, *and he knows that he survives*. What is it, I would ask, in the human system that answers to this conscious survival of the operator when the battery of the brain is so disturbed as to produce insensibility, or when it is destroyed altogether?

"Another consideration, which you may consider slight, presses upon me with some force. The brain may change from health to disease, and through such a change the most exemplary man may be converted into a debauchee or a murderer. My very noble and approved good master had, as you know, threatenings of lewdness introduced into his brain by his jealous wife's philter; and sooner than permit himself to run even the risk of yielding to these base promptings, he slew himself. How could the hand of Lucretius have been thus turned against himself if the real Lucretius remained as before? Can the brain or can it not act in this distempered way without the intervention of the immortal reason? If it can, then it is a prime mover which requires only healthy regulation to render it reasonably self-acting, and there is no apparent need of your immortal reason at all. If it cannot, then the immortal reason, by its mischievous activity in operating upon a broken instrument, must have the credit of committing every imaginable extravagance and crime. I think, if you will allow me to say so, that the gravest consequences are likely to flow from your estimate of the body. To regard the brain as you would a staff or an eyeglass — to shut your eyes to all its mystery, to the perfect correlation that reigns between its condition and our consciousness, to the fact that a slight excess or defect of blood in it produces that very swoon to which you refer, and that in relation to it our meat and drink and air and exercise have a perfectly transcendental value and significance — to forget all this does, I think, open a way to innumerable errors in our habits of life, and may possibly in some cases initiate and foster that very disease, and consequent

mental ruin, which a wiser appreciation of this mysterious organ would have avoided."

I can imagine the bishop thoughtful after hearing this argument. He was not the man to allow anger to mingle with the consideration of a point of this kind. After due consideration, and having strengthened himself by that honest contemplation of the facts which was habitual with him, and which includes the desire to give even adverse facts their due weight, I can suppose the bishop to proceed thus: "You will remember that in the *Analogy of Religion*, of which you have so kindly spoken, I did not profess to prove anything absolutely, and that I over and over again acknowledged and insisted on the smallness of our knowledge, or rather the depth of our ignorance, as regards the whole system of the universe. My object was to show my deistical friends who set forth so eloquently the beauty and beneficence of Nature and the Ruler thereof, while they had nothing but scorn for the so-called absurdities of the Christian scheme, that they were in no better condition than we were, and that for every difficulty they found upon our side, quite as great a difficulty was to be found on theirs. I will now with your permission adopt a similar line of argument. You are a Lucretian, and from the combination and separation of atoms deduce all terrestrial things, including organic forms and their phenomena. Let me tell you in the first instance how far I am prepared to go with you. I admit that you can build crystalline forms out of this play of molecular force; that the diamond, amethyst, and snow star are truly wonderful structures which are thus produced. I will go further, and acknowledge that even a tree or flower might in this way be organized. Nay, if you can show me an animal without sensation, I will concede to you that it also might be put together by the suitable play of molecular force.

"Thus far our way is clear, but now comes my difficulty. Your atoms are individually without sensation; much more are they without intelligence. May I ask you, then, to try your hand upon this problem? Take your dead hydrogen atoms, your dead oxygen atoms, your dead carbon atoms, your dead

nitrogen atoms, your dead phosphorus atoms, and all the other atoms, dead as grains of shot, of which the brain is formed. Imagine them separate and sensationless; observe them running together and forming all imaginable combinations. This, as a purely mechanical process, is *seeable* by the mind. But can you see, or dream, or in any way imagine, how out of that mechanical act, and from these individually dead atoms, sensation, thought, and emotion are to arise? You speak of the difficulty of mental presentation in my case; is it less in yours? I am not all bereft of this *Vorstellungs-kraft*[1] of which you speak. I can follow a particle of musk until it reaches the olfactory nerve; I can follow the waves of sound until their tremors reach the water of the labyrinth, and set the otoliths and Corti's fibers in motion; I can also visualize the waves of ether as they cross the eye and hit the retina. Nay, more, I am able to follow up to the central organ the motion thus imparted at the periphery, and to see in idea the very molecules of the brain thrown into tremors. My insight is not baffled by these physical processes. What baffles me, what I find unimaginable, transcending every faculty I possess — transcending, I humbly submit, every faculty *you* possess — is the notion that out of those physical tremors you can extract things so utterly incongruous with them as sensation, thought, and emotion. You may say, or think, that this issue of consciousness from the clash of atoms is not more incongruous than the flash of light from the union of oxygen and hydrogen. But I beg to say that it is. For such incongruity as the flash possesses is that which I now force upon your attention. The flash is an affair of consciousness, the objective counterpart of which is a vibration. It is a flash only by our interpretation. *You* are the cause of the apparent incongruity; and *you* are the thing that puzzles me. I need not remind you that the great Leibnitz felt the difficulty which I feel, and that to get rid of this monstrous deduction of life from death he displaced your atoms by his monads, which were more or less perfect mirrors of the universe, and out of the summation

[1] Power of imagining. — *Editors.*

and integration of which he supposed all the phenomena of life — sentient, intellectual, and emotional — to arise.

"Your difficulty, then, as I see you are ready to admit, is quite as great as mine. You cannot satisfy the human understanding in its demand for logical continuity between molecular processes and the phenomena of consciousness. This is a rock on which materialism must inevitably split whenever it pretends to be a complete philosophy of life. What is the moral, my Lucretian? You and I are not likely to indulge in ill temper in the discussion of these great topics, where we see so much room for honest differences of opinion. But there are people of less wit or more bigotry (I say it with humility) on both sides, who are ever ready to mingle anger and vituperation with such discussions. There are, for example, writers of note and influence at the present day who are not ashamed to assume the 'deep personal sin' of a great logician to be the cause of his unbelief in a theologic dogma. And there are others who hold that we, who cherish our noble Bible, wrought as it has been into the constitution of our forefathers, and by inheritance into us, must necessarily be hypocritical and insincere. Let us disavow and discountenance such people, cherishing the unswerving faith that what is good and true in both our arguments will be preserved for the benefit of humanity, while all that is bad or false will disappear."

It is worth remarking that in one respect the bishop was a product of his age. Long previous to his day the nature of the soul had been so favorite and general a topic of discussion that when the students of the University of Paris wished to know the leanings of a new professor, they at once requested him to lecture upon the soul. About the time of Bishop Butler the question was not only agitated, but extended. It was seen by the clear-witted men who entered this arena that many of their best arguments applied equally to brutes and men. The bishop's arguments were of this character. He saw it, admitted it, accepted the consequences, and boldly embraced the whole animal world in his scheme of immortality.

Bishop Butler accepted with unwavering trust the chronology of the Old Testament, describing it as "confirmed by the natural and civil history of the world, collected from common historians, from the state of the earth, and from the late inventions of arts and sciences." These words mark progress; they must seem somewhat hoary to the bishop's successors of to-day.[1] It is hardly necessary to inform you that since his time the domain of the naturalist has been immensely extended — the whole science of geology, with its astounding revelations regarding the life of the ancient earth, having been created. The rigidity of old conceptions has been relaxed, the public mind being rendered gradually tolerant of the idea that not for six thousand, nor for sixty thousand, nor for six thousand thousand, but for æons embracing untold millions of years, this earth has been the theater of life and death. The riddle of the rocks has been read by the geologist and paleontologist, from sub-Cambrian depths to the deposits thickening over the sea bottoms of to-day. And upon the leaves of that stone book are, as you know, stamped the characters, plainer and surer than those formed by the ink of history, which carry the mind back into abysses of past time compared with which the periods which satisfied Bishop Butler cease to have a visual angle. Everybody now knows this; all men admit it; still, when they were first broached, these verities of science found loud-tongued denunciators, who proclaimed not only their baselessness considered scientifically, but their immorality considered as questions of ethics and religion: the Book of Genesis had stated the question in a different fashion; and science must necessarily go to pieces when it clashed with this authority. And as the seed of the thistle produces a thistle, and nothing else, so these objectors scatter their germs abroad, and reproduce their kind, ready to play again the part of their intellectual progenitors, to show the same virulence, the same ignorance, to achieve for a time the same success, and finally to suffer the same inexor-

[1] Only to some; for there are dignitaries who even now speak of the earth's rocky crust as so much building material prepared for man at the Creation. Surely it is time that this loose language should cease.

able defeat. Sure the time must come at last when human nature in its entirety, whose legitimate demands it is admitted science alone cannot satisfy, will find interpreters and expositors of a different stamp from those rash and ill-informed persons who have been hitherto so ready to hurl themselves against every new scientific revelation, lest it should endanger what they are pleased to consider theirs.

The lode of discovery once struck, those petrified forms in which life was at one time active increased to multitudes and demanded classification. The general fact soon became evident that none but the simplest forms of life lie lowest down, that as we climb higher and higher among the superimposed strata more perfect forms appear. The change, however, from form to form was not continuous, but by steps, some small, some great. "A section," says Mr. Huxley, "a hundred feet thick will exhibit at different heights a dozen species of ammonite, none of which passes beyond its particular zone of limestone, or clay, into the zone below it, or into that above it." In the presence of such facts it was not possible to avoid the question, Have these forms, showing, though in broken stages and with many irregularities, this unmistakable general advance, been subjected to no continuous law of growth or variation? Had our education been purely scientific, or had it been sufficiently detached from influences which, however ennobling in another domain, have always proved hindrances and delusions when introduced as factors into the domain of physics, the scientific mind never could have swerved from the search for a law of growth, or allowed itself to accept the anthropomorphism which regarded each successive stratum as a kind of mechanic's bench for the manufacture of new species out of all relation to the old.

Biased, however, by their previous education, the great majority of naturalists invoked a special creative act to account for the appearance of each new group of organisms. Doubtless there were numbers who were clear-headed enough to see that this was no explanation at all; that in point of fact it was an attempt, by the introduction of a greater difficulty, to account

for a less. But having nothing to offer in the way of explanation, they for the most part held their peace. Still the thoughts of reflecting men naturally and necessarily simmered round the question. De Maillet, a contemporary of Newton, has been brought into notice by Professor Huxley as one who "had a notion of the modifiability of living forms." In my frequent conversations with him, the late Sir Benjamin Brodie, a man of highly philosophic mind, often drew my attention to the fact that, as early as 1794, Charles Darwin's grandfather was the pioneer of Charles Darwin. In 1801, and in subsequent years, the celebrated Lamarck, who produced so profound an impression on the public mind through the vigorous exposition of his views by the author of *Vestiges of Creation*, endeavored to show the development of species out of changes of habit and external condition. In 1813 Dr. Wells, the founder of our present theory of dew, read before the Royal Society a paper in which, to use the words of Mr. Darwin, "he distinctly recognizes the principle of natural selection; and this is the first recognition that has been indicated." The thoroughness and skill with which Wells pursued his work, and the obvious independence of his character, rendered him long ago a favorite with me; and it gave me the liveliest pleasure to alight upon this additional testimony to his penetration. Professor Grant, Mr. Patrick Matthew, von Buch, the author of the *Vestiges*, D'Halloy, and others,[1] by the enunciation of views more or less clear and correct, showed that the question had been fermenting long prior to the year 1858, when Mr. Darwin and Mr. Wallace simultaneously, but independently, placed their closely concurrent views upon the subject before the Linnæan Society.

These papers were followed in 1859 by the publication of the first edition of *The Origin of Species*. All great things come slowly to the birth. Copernicus, as I informed you, pondered

[1] In 1855 Mr. Herbert Spencer (*Principles of Psychology*, 2d ed., vol. i, p. 465) expressed "the belief that life under all its forms has arisen by an unbroken evolution, and through the instrumentality of what are called natural causes."

his great work for thirty-three years. Newton for nearly twenty years kept the idea of gravitation before his mind; for twenty years also he dwelt upon his discovery of fluxions, and doubtless would have continued to make it the object of his private thought had he not found that Leibnitz was upon his track. Darwin for two and twenty years pondered the problem of the origin of species, and doubtless he would have continued to do so had he not found Wallace upon his track.[1] A concentrated but full and powerful epitome of his labors was the consequence. The book was by no means an easy one; and probably not one in every score of those who then attacked it had read its pages through, or was competent to grasp their significance if he had. I do not say this merely to discredit them; for there were in those days some really eminent scientific men, entirely raised above the heat of popular prejudice, willing to accept any conclusion that science had to offer, provided it was duly backed by fact and argument, and who entirely mistook Mr. Darwin's views. In fact, the work needed an expounder; and it found one in Mr. Huxley. I know nothing more admirable in the way of scientific exposition than those early articles of his on the origin of species. He swept the curve of discussion through the really significant points of the subject, enriched his exposition with profound original remarks and reflections, often summing up in a single pithy sentence an argument which a less compact mind would have spread over pages. But there is one impression made by the book itself which no exposition of it, however luminous, can convey; and that is the impression of the vast amount of labor, both of observation and of thought, implied in its production. Let us glance at its principles.

It is conceded on all hands that what are called varieties are continually produced. The rule is probably without exception. No chick and no child is in all respects and particulars the counterpart of its brother or sister; and in such differences we have "variety" incipient. No naturalist could tell how far this varia-

[1] The behavior of Mr. Wallace in relation to this subject has been dignified in the highest degree.

tion could be carried; but the great mass of them held that never by any amount of internal or external change, nor by the mixture of both, could the offspring of the same progenitor so far deviate from each other as to constitute different species. The function of the experimental philosopher is to combine the conditions of nature and to produce her results; and this was the method of Darwin.[1] He made himself acquainted with what could, without any manner of doubt, be done in the way of producing variation. He associated himself with pigeon fanciers — bought, begged, kept, and observed every breed that he could obtain. Though derived from a common stock, the diversities of these pigeons were such that "a score of them might be chosen which, if shown to an ornithologist, and he were told that they were wild birds, would certainly be ranked by him as well-defined species." The simple principle which guides the pigeon fancier, as it does the cattle breeder, is the selection of some variety that strikes his fancy, and the propagation of this variety by inheritance. With his eye still upon the particular appearance which he wishes to exaggerate, he selects it as it reappears in successive broods, and thus adds increment to increment until an astonishing amount of divergence from the parent type is effected. Man in this case does not produce the *elements* of the variation. He simply observes them, and by selection adds them together until the required result has been obtained. "No man," says Mr. Darwin, "would ever try to make a fantail till he saw a pigeon with a tail developed in some slight degree in an unusual manner, or a pouter until he saw a pigeon with a crop of unusual size." Thus nature gives the hint, man acts upon it, and by the law of inheritance exaggerates the deviation.

Having thus satisfied himself by indubitable facts that the organization of an animal or of a plant (for precisely the same treatment applies to plants) is to some extent plastic, he passes from variation under domestication to variation under nature.

[1] The first step only toward experimental demonstration has been taken. Experiments now begun might, a couple of centuries hence, furnish data of incalculable value, which ought to be supplied to the science of the future.

Hitherto we have dealt with the adding together of small changes by the conscious selection of man. Can nature thus select? Mr. Darwin's answer is, "Assuredly she can." The number of living things produced is far in excess of the number that can be supported; hence at some period or other of their lives there must be a struggle for existence; and what is the infallible result? If one organism were a perfect copy of the other in regard to strength, skill, and agility, external conditions would decide. But this is not the case. Here we have the fact of variety offering itself to nature, as in the former instance it offered itself to man; and those varieties which are least competent to cope with surrounding conditions will infallibly give way to those that are competent. To use a familiar proverb, the weakest comes to the wall. But the triumphant fraction again breeds to overproduction, transmitting the qualities which secured its maintenance, but transmitting them in different degrees. The struggle for food again supervenes, and those to whom the favorable quality has been transmitted in excess will assuredly triumph. It is easy to see that we have here the addition of increments favorable to the individual still more rigorously carried out than in the case of domestication; for not only are unfavorable specimens not selected by nature, but they are destroyed. This is what Mr. Darwin calls "natural selection," which "acts by the preservation and accumulation of small inherited modifications, each profitable to the preserved being." With this idea he interpenetrates and leavens the vast store of facts that he and others have collected. We cannot, without shutting our eyes through fear or prejudice, fail to see that Darwin is here dealing, not with imaginary, but with true, causes; nor can we fail to discern what vast modifications may be produced by natural selection in periods sufficiently long. Each individual increment may resemble what mathematicians call a "differential" (a quantity indefinitely small); but definite and great changes may obviously be produced by the integration of these infinitesimal quantities through practically infinite time.

If Darwin, like Bruno, rejects the notion of creative power

acting after human fashion, it certainly is not because he is unacquainted with the numberless exquisite adaptations on which this notion of a supernatural artificer has been founded. His book is a repository of the most startling facts of this description. Take the marvelous observation which he cites from Dr. Crüger, where a bucket with an aperture, serving as a spout, is formed in an orchid. Bees visit the flower: in eager search of material for their combs they push each other into the bucket, the drenched ones escaping from their involuntary bath by the spout. Here they rub their backs against the viscid stigma of the flower and obtain glue; then against the pollen masses, which are thus stuck to the back of the bee and carried away. "When the bee, thus provided, flies to another flower, or to the same flower a second time, and is pushed by its comrades into the bucket, and then crawls out by the passage, the pollen mass upon its back necessarily comes first into contact with the viscid stigma," which takes up the pollen; and this is how that orchid is fertilized. Or take this other case of the *Catasetum.* "Bees visit these flowers in order to gnaw the labellum; on doing this they inevitably touch a long, tapering, sensitive projection. This, when touched, transmits a sensation or vibration to a certain membrane, which is instantly ruptured, setting free a spring, by which the pollen mass is shot forth like an arrow in the right direction, and adheres by its viscid extremity to the back of the bee." In this way the fertilizing pollen is spread abroad.

It is the mind thus stored with the choicest materials of the teleologist that rejects teleology,[1] seeking to refer these wonders to natural causes. They illustrate, according to him, the method of nature, not the "technic" of a manlike artificer. The beauty of flowers is due to natural selection. Those that distinguish themselves by vividly contrasting colors from the surrounding green leaves are most readily seen, most frequently visited by insects, most often fertilized, and hence most favored by natural selection. Colored berries also readily attract the attention of birds and beasts, which feed upon them, and spread their manured

[1] The belief that all things exist for a definite purpose. — *Editors.*

seeds abroad, thus giving trees and shrubs possessing such berries a greater chance in the struggle for existence.

With profound analytic and synthetic skill, Mr. Darwin investigates the cell-making instinct of the hive bee. His method of dealing with it is representative. He falls back from the more perfectly to the less perfectly developed instinct — from the hive bee to the humblebee, which uses its own cocoon as a comb, and to classes of bees of intermediate skill, endeavoring to show how the passage might be gradually made from the lowest to the highest. The saving of wax is the most important point in the economy of bees. Twelve to fifteen pounds of dry sugar are said to be needed for the secretion of a single pound of wax. The quantities of nectar necessary for the wax must therefore be vast; and every improvement of constructive instinct which results in the saving of wax is a direct profit to the insect's life. The time that would otherwise be devoted to the making of wax is now devoted to the gathering and storing of honey for winter food. He passes from the humblebee with its rude cells, through the *Melipona* with its more artistic cells, to the hive bee with its astonishing architecture. The bees place themselves at equal distances apart upon the wax, sweep and excavate equal spheres round the selected points. The spheres intersect, and the planes of intersection are built up with thin laminæ. Hexagonal cells are thus formed. This mode of treating such questions is, as I have said, representative. He habitually retires from the more perfect and complex to the less perfect and simple, carries you with him through stages of *perfecting*, adds increment to increment of infinitesimal change, and in this way gradually breaks down your reluctance to admit that the exquisite climax of the whole could be a result of natural selection.

Mr. Darwin shirks no difficulty; and, saturated as the subject was with his own thought, he must have known, better than his critics, the weakness as well as the strength of his theory. This of course would be of little avail were his object a temporary dialectic victory instead of the establishment of a truth which he means to be everlasting. But he takes no pains to disguise the

weakness he has discerned; nay, he takes every pains to bring it into the strongest light. His vast resources enable him to cope with objections started by himself and others, so as to leave the final impression upon the reader's mind that, if they be not completely answered, they certainly are not fatal. Their negative force being thus destroyed, you are free to be influenced by the vast positive mass of evidence he is able to bring before you. This largeness of knowledge and readiness of resource render Mr. Darwin the most terrible of antagonists. Accomplished naturalists have leveled heavy and sustained criticisms against him — not always with the view of fairly weighing his theory, but with the express intention of exposing its weak points only. This does not irritate him. He treats every objection with a soberness and thoroughness which even Bishop Butler might be proud to imitate, surrounding each fact with its appropriate detail, placing it in its proper relations, and usually giving it a significance which, as long as it was kept isolated, failed to appear. This is done without a trace of ill-temper. He moves over the subject with the passionless strength of a glacier; and the grinding of the rocks is not always without a counterpart in the logical pulverization of the objector. But though in handling this mighty theme all passion has been stilled, there is an emotion of the intellect incident to the discernment of new truth which often colors and warms the pages of Mr. Darwin. His success has been great; and this implies not only the solidity of his work, but the preparedness of the public mind for such a revelation. On this head a remark of Agassiz impressed me more than anything else. Sprung from a race of theologians, this celebrated man combated to the last the theory of natural selection. One of the many times I had the pleasure of meeting him in the United States was at Mr. Winthrop's beautiful residence at Brookline, near Boston. Rising from luncheon, we all halted as if by a common impulse in front of a window, and continued there a discussion which had been started at table. The maple was in its autumn glory; and the exquisite beauty of the scene outside seemed, in my case, to interpenetrate without disturb-

ance the intellectual action. Earnestly, almost sadly, Agassiz turned and said to the gentlemen standing round : "I confess that I was not prepared to see this theory received as it has been by the best intellects of our time. Its success is greater than I could have thought possible."

In our day great generalizations have been reached. The theory of the origin of species is but one of them. Another, of still wider grasp and more radical significance, is the doctrine of the Conservation of Energy, the ultimate philosophical issues of which are as yet but dimly seen — that doctrine which "binds nature fast in fate" to an extent not hitherto recognized, exacting from every antecedent its equivalent consequent, from every consequent its equivalent antecedent, and bringing vital as well as physical phenomena under the dominion of that law of causal connection which, as far as the human understanding has yet pierced, asserts itself everywhere in nature. Long in advance of all definite experiment upon the subject, the constancy and indestructability of matter had been affirmed; and all subsequent experience justified the affirmation. Later researches extended the attribute of indestructibility to force. This idea, applied in the first instance to inorganic, rapidly embraced organic, nature. The vegetable world, though drawing almost all its nutriment from invisible sources, was proved incompetent to generate anew either matter or force. Its matter is for the most part transmuted air; its force transformed solar force. The animal world was proved to be equally uncreative, all its motive energies being referred to the combustion of its food. The activity of each animal as a whole was proved to be the transferred activities of its molecules. The muscles were shown to be stores of mechanical force, potential until unlocked by the nerves, and then resulting in muscular contractions. The speed at which messages fly to and fro along the nerves was determined, and found to be, not, as had been previously supposed, equal to that of light or electricity, but less than the speed of a flying eagle.

This was the work of the physicist; then came the conquests of the comparative anatomist and physiologist, revealing the

structure of every animal, and the function of every organ in the whole biological series, from the lowest zoöphyte up to man. The nervous system had been made the object of profound and continued study, the wonderful, and at bottom entirely mysterious, controlling power which it exercises over the whole organism, physical and mental, being recognized more and more. Thought could not be kept back from a subject so profoundly suggestive. Besides the physical life dealt with by Mr. Darwin, there is a psychical life presenting similar gradations, and asking equally for a solution. How are the different grades and orders of mind to be accounted for? What is the principle of growth of that mysterious power which on our planet culminates in Reason? These are questions which, though not thrusting themselves so forcibly upon the attention of the general public, had not only occupied many reflecting minds, but had been formally broached by one of them before the *Origin of Species* appeared.

With the mass of materials furnished by the physicist and physiologist in his hands, Mr. Herbert Spencer, twenty years ago, sought to graft upon this basis a system of psychology; and two years ago a second and greatly amplified edition of his work appeared. Those who have occupied themselves with the beautiful experiments of Plateau will remember that when two spherules of olive oil, suspended in a mixture of alcohol and water of the same density as the oil, are brought together, they do not immediately unite. Something like a pellicle appears to be formed around the drops, the rupture of which is immediately followed by the coalescence of the globules into one. There are organisms whose vital actions are almost as purely physical as that of these drops of oil. They come into contact and fuse themselves thus together. From such organisms to others a shade higher, and from these to others a shade higher still, and on through an ever ascending series, Mr. Spencer conducts his argument. There are two obvious factors to be here taken into account — the creature and the medium in which it lives, or, as it is often expressed, the organism and its environment. Mr. Spencer's fundamental principle is, that between these two factors there is

incessant interaction. The organism is played upon by the environment, and is modified to meet the requirements of the environment. Life he defines to be "a continuous adjustment of internal relations to external relations."

In the lowest organisms we have a kind of tactual sense diffused over the entire body; then, through impressions from without and their corresponding adjustments, special portions of the surface become more responsive to stimuli than others. The senses are nascent, the basis of all of them being that simple tactual sense which the sage Democritus recognized 2300 years ago as their common progenitor. The action of light, in the first instance, appears to be a mere disturbance of the chemical processes in the animal organism, similar to that which occurs in the leaves of plants. By degrees the action becomes localized in a few pigment cells, more sensitive to light than the surrounding tissue. The eye is here incipient. At first it is merely capable of revealing differences of light and shade produced by bodies close at hand. Followed, as the interception of the light is in almost all cases, by the contact of the closely adjacent opaque body, sight in this condition becomes a kind of "anticipatory touch." The adjustment continues; a slight bulging out of the epidermis over the pigment granules supervenes. A lens is incipient, and, through the operation of infinite adjustments, at length reaches the perfection that it displays in the hawk and the eagle. So of the other senses; they are special differentiations of a tissue which was originally vaguely sensitive all over.

With the development of the senses the adjustments between the organism and its environment gradually extend in *space*, a multiplication of experiences and a corresponding modification of conduct being the result. The adjustments also extend in *time*, covering continually greater intervals. Along with this extension in space and time, the adjustments also increase in specialty and complexity, passing through the various grades of brute life and prolonging themselves into the domain of reason. Very striking are Mr. Spencer's remarks regarding the influence of

the sense of touch upon the development of intelligence. This is, so to say, the mother tongue of all the senses, into which they must be translated to be of service to the organism. Hence its importance. The parrot is the most intelligent of birds, and its tactual power is also greatest. From this sense it gets knowledge unattainable by birds which cannot employ their feet as hands. The elephant is the most sagacious of quadrupeds — its tactual range and skill, and the consequent multiplication of experiences which it owes to its wonderfully adaptable trunk being the basis of its sagacity. Feline animals, for a similar cause, are more sagacious than hoofed animals — atonement being to some extent made in the case of the horse by the possession of sensitive prehensile lips. In the *Primates* the evolution of intellect and the evolution of tactual appendages go hand in hand. In the most intelligent anthropoid apes we find the tactual range and delicacy greatly augmented, new avenues of knowledge being thus opened to the animal. Man crowns the edifice here, not only in virtue of his own manipulatory power, but through the enormous extension of his range of experience, by the invention of instruments of precision, which serve as supplemental senses and supplemental limbs. The reciprocal action of these is finely described and illustrated. That chastened intellectual emotion to which I have referred in connection with Mr. Darwin is, I should say, not absent in Mr. Spencer. His illustrations possess at times exceeding vividness and force, and from his style on such occasions it is to be inferred that the ganglia of this apostle of the understanding are sometimes the seat of a nascent poetic thrill.

It is a fact of supreme importance that actions the performance of which at first requires even painful effort and deliberation may by habit be rendered automatic. Witness the slow learning of its letters by a child, and the subsequent facility of reading in a man, when each group of letters which forms a word is instantly and without effort fused to a single perception. Instance the billiard player, whose muscles of hand and eye, when he reaches the perfection of his art, are unconsciously co-

ordinated. Instance the musician, who by practice is enabled to fuse a multitude of arrangements — auditory, tactual, and muscular — into a process of automatic manipulation. Combining such facts with the doctrine of hereditary transmission, we reach a theory of instinct. A chick, after coming out of the egg, balances itself correctly, runs about, picks up food, thus showing that it possesses a power of directing its movements to definite ends. How did the chick learn this very complex co-ordination of eye, muscles, and beak? It has not been individually taught; its personal experience is *nil;* but it has the benefit of ancestral experience. In its inherited organization are registered all the powers which it displays at birth. So also as regards the instinct of the hive bee, already referred to. The distance at which the insects stand apart when they sweep their hemispheres and build their cells is "organically remembered." Man also carries with him the physical texture of his ancestry, as well as the inherited intellect bound up with it. The defects of intelligence during infancy and youth are probably less due to a lack of individual experience than to the fact that in early life the cerebral organization is still incomplete. The period necessary for completion varies with the race and with the individual. As a round shot outstrips a rifled one on quitting the muzzle of the gun, so the lower race in childhood may outstrip the higher. But the higher eventually overtakes the lower, and surpasses it in range. As regards individuals, we do not always find the precocity of youth prolonged to mental power in maturity; while the dullness of boyhood is sometimes strikingly contrasted with the intellectual energy of after years. Newton, when a boy, was weakly, and he showed no particular aptitude at school; but in his eighteenth year he went to Cambridge, and soon afterward astonished his teachers by his power of dealing with geometrical problems. During his quiet youth his brain was slowly preparing itself to be the organ of those energies which he subsequently displayed.

By myriad blows (to use a Lucretian phrase) the image and superscription of the external world are stamped as states of

consciousness upon the organism, the depth of the impression depending upon the number of the blows. When two or more phenomena occur in the environment invariably together, they are stamped to the same depth or to the same relief, and are indissolubly connected. And here we come to the threshold of a great question. Seeing that he could in no way rid himself of the consciousness of space and time, Kant assumed them to be necessary "forms of thought," the molds and shapes into which our intuitions are thrown, belonging to ourselves solely and without objective existence. With unexpected power and success Mr. Spencer brings the hereditary experience theory, as he holds it, to bear upon this question. "If there exist certain external relations which are experienced by all organisms at all instants of their waking lives — relations which are absolutely constant and universal — there will be established answering internal relations that are absolutely constant and universal. Such relations we have in those of space and time. As the substratum of all other relations of the Non-Ego, they must be responded to by conceptions that are the substrata of all other relations in the Ego. Being the constant and infinitely repeated elements of thought, they must become the automatic elements of thought — the elements of thought which it is impossible to get rid of — the 'forms of intuition.'"

Throughout this application and extension of the "law of inseparable association," Mr. Spencer stands on totally different ground from Mr. John Stuart Mill, invoking the registered experiences of the race instead of the experiences of the individual. His overthrow of Mr. Mill's restriction of experience is, I think, complete. That restriction ignores the power of organizing experience furnished at the outset to each individual; it ignores the different degrees of this power possessed by different races and by different individuals of the same race. Were there not in the human brain a potency antecedent to all experience, a dog or cat ought to be as capable of education as a man. These predetermined internal relations are independent of the experiences of the individual. The human brain is the "organized

register of infinitely numerous experiences received during the evolution of life, or rather during the evolution of that series of organisms through which the human organism has been reached. The effects of the most uniform and frequent of these experiences have been successfully bequeathed, principal and interest, and have slowly mounted to that high intelligence which lies latent in the brain of the infant. Thus it happens that the European inherits from twenty to thirty cubic inches more of brain than the Papuan. Thus it happens that faculties, as of music, which scarcely exist in some inferior races, become congenital in superior ones. Thus it happens that out of savages unable to count up to the number of their fingers, and speaking a language containing only nouns and verbs, arise at length our Newtons and Shakespeares."

At the outset of this address it was stated that physical theories which lie beyond experience are derived by a process of abstraction from experience. It is instructive to note from this point of view the successive introduction of new conceptions. The idea of the attraction of gravitation was preceded by the observation of the attraction of iron by a magnet, and of light bodies by rubbed amber. The polarity of magnetism and electricity appealed to the senses; and thus became the substratum of the conception that atoms and molecules are endowed with definite, attractive, and repellent poles, by the play of which definite forms of crystalline architecture are produced. This molecular force becomes *structural*. It required no great boldness of thought to extend its play into organic nature, and to recognize in molecular force the agency by which both plants and animals are built up. In this way, out of experience arise conceptions which are wholly ultra-experiential.

The *origination* of life is a point lightly touched upon, if at all, by Mr. Darwin and Mr. Spencer. Diminishing gradually the number of progenitors, Mr. Darwin comes at length to one "primordial form;" but he does not say, as far as I remember, how he supposes this form to have been introduced. He quotes with satisfaction the words of a celebrated author and divine

who had "gradually learned to see that it is just as noble a conception of the Deity to believe He created a few original forms, capable of self-development into other and needful forms, as to believe that He required a fresh act of creation to supply the voids caused by the action of his laws." What Mr. Darwin thinks of this view of the introduction of life I do not know. Whether he does or does not introduce his "primordial form" by a creative act, I do not know. But the question will inevitably be asked, "How came the form there?" With regard to the diminution of the number of created forms, one does not see that much advantage is gained by it. The anthropomorphism, which it seemed the object of Mr. Darwin to set aside, is as firmly associated with the creation of a few forms as with the creation of a multitude. We need clearness and thoroughness here. Two courses, and two only, are possible. Either let us open our doors freely to the conception of creative acts, or, abandoning them, let us radically change our notions of matter. If we look at matter as pictured by Democritus, and as defined for generations in our scientific textbooks, the absolute impossibility of any form of life coming out of it would be sufficient to render any other hypothesis preferable; but the definitions of matter given in our textbooks were intended to cover its purely physical and mechanical properties. And taught as we have been to regard these definitions as complete, we naturally and rightly reject the monstrous notion that out of *such* matter any form of life could possibly arise. But are the definitions complete? Everything depends on the answer to be given to this question. Trace the line of life backward, and see it approaching more and more to what we call the purely physical condition. We reach at length those organisms which I have compared to drops of oil suspended in a mixture of alcohol and water. We reach the *protogenes* of Haeckel, in which we have "a type distinguishable from a fragment of albumen only by its finely granular character." Can we pause here? We break a magnet and find two poles in each of its fragments. We continue the process of breaking, but however small the parts, each

carries with it, though enfeebled, the polarity of the whole. And when we can break no longer, we prolong the intellectual vision to the polar molecules. Are we not urged to do *something* similar in the case of life? Is there not a temptation to close to some extent with Lucretius, when he affirms that "Nature is seen to do all things spontaneously of herself without the meddling of the gods?" or with Bruno, when he declares that matter is not "that mere empty *capacity* which philosophers have pictured her to be, but the universal mother who brings forth all things as the fruit of her own womb?" The questions here raised are inevitable. They are approaching us with accelerated speed, and it is not a matter of indifference whether they are introduced with reverence or irreverence. Abandoning all disguise, the confession that I feel bound to make before you is that I prolong the vision backward across the boundary of the experimental evidence, and discern in that matter, which we in our ignorance, and notwithstanding our professed reverence for its Creator, have hitherto covered with opprobrium, the promise and potency of every form and quality of life.

The "materialism" here enunciated may be different from what you suppose, and I therefore crave your gracious patience to the end. "The question of an external world," says Mr. J. S. Mill, "is the great battle ground of metaphysics."[1] Mr. Mill himself reduces external phenomena to "possibilities of sensation." Kant, as we have seen, made time and space "forms" of our own intuitions. Fichte, having first by the inexorable logic of his understanding proved himself to be a mere link in that chain of external causation which holds so rigidly in nature, violently broke the chain by making nature, and all that it inherits, an apparition of his own mind.[2] And it is by no means easy to combat such notions. For when I say I see you, and that I have not the least doubt about it, the reply is, that what I am really conscious of is an affection of my own retina. And if I urge that I can check my sight of you by touching you, the retort would be that I am equally transgress-

[1] *Examination of Hamilton*, p. 154. [2] *Bestimmung des Menschen.*

ing the limits of fact; for what I am really conscious of is, not that you are there, but that the nerves of my hand have undergone a change. All we hear, and see, and touch, and taste, and smell, are, it would be urged, mere variations of our own condition, beyond which, even to the extent of a hair's breadth, we cannot go. That anything answering to our impressions exists outside of ourselves is not a *fact*, but an *inference*, to which all validity would be denied by an idealist like Berkeley, or by a skeptic like Hume. Mr. Spencer takes another line. With him, as with the uneducated man, there is no doubt or question as to the existence of an external world. But he differs from the uneducated, who think that the world really *is* what consciousness represents it to be. Our states of consciousness are mere *symbols* of an outside entity which produces them and determines the order of their succession, but the real nature of which we can never know.[1] In fact, the whole process of evolution is the manifestation of a Power absolutely inscrutable to the intellect of man. As little in our day as in the days of Job can man, by searching, find this Power out. Considered fundamentally, it is by the operation of an insoluble mystery that life is evolved, species differentiated, and mind unfolded from their prepotent elements in the immeasurable past. There is, you will observe, no very rank materialism here.

[1] In a paper, at once popular and profound, entitled "Recent Progress in the Theory of Vision," contained in the volume of lectures by Helmholtz published by Longmans [*Popular Lectures on Scientific Subjects*], this symbolism of our states of consciousness is also dwelt upon. The impressions of sense are the mere *signs* of external things. In this paper Helmholtz contends strongly against the view that the consciousness of space is inborn; and he evidently doubts the power of the chick to pick up grains of corn without some preliminary lessons. On this point, he says, further experiments are needed. Such experiments have been since made by Mr. Spalding, aided, I believe, in some of his observations by the accomplished and deeply lamented Lady Amberley; and they seem to prove conclusively that the chick does not need a single moment's tuition to teach it to stand, run, govern the muscles of its eyes, and peck. Helmholtz, however, is contending against the notion of preëstablished harmony; and I am not aware of his views as to the organization of experiences of race or breed.

The strength of the doctrine of evolution consists, not in an experimental demonstration (for the subject is hardly accessible to this mode of proof), but in its general harmony with the method of nature as hitherto known. From contrast, moreover, it derives enormous relative strength. On the one side we have a theory (if it could with any propriety be so called) derived, as were the theories referred to at the beginning of this address, not from the study of nature, but from the observation of men — a theory which converts the Power whose garment is seen in the visible universe into an artificer, fashioned after the human model, and acting by broken efforts as man is seen to act. On the other side we have the conception that all we see around us, and all we feel within us — the phenomena of physical nature as well as those of the human mind — have their unsearchable roots in a cosmical life, if I dare apply the term, an infinitesimal span of which only is offered to the investigation of man. And even this span is only knowable in part. We can trace the development of a nervous system, and correlate with it the parallel phenomena of sensation and thought. We see with undoubting certainty that they go hand in hand. But we try to soar in a vacuum the moment we seek to comprehend the connection between them. An Archimedean fulcrum is here required which the human mind cannot command; and the effort to solve the problem, to borrow an illustration from an illustrious friend of mine, is like the effort of a man trying to lift himself by his own waistband. All that has been here said is to be taken in connection with this fundamental truth. When "nascent senses" are spoken of, when "the differentiation of a tissue at first vaguely sensitive all over" is spoken of, and when these processes are associated with "the modification of an organism by its environment," the same parallelism without contact, or even approach to contact, is implied. There is no fusion possible between the two classes of facts — no motor energy in the intellect of man to carry it without logical rupture from the one to the other.

Further, the doctrine of evolution derives man, in his totality,

from the interaction of organism and environment through countless ages past. The human understanding, for example — the faculty which Mr. Spencer has turned so skillfully round upon its own antecedents — is itself a result of the play between organism and environment through cosmic ranges of time. Never surely did prescription plead so irresistible a claim. But then it comes to pass that, over and above his understanding, there are many other things appertaining to man whose prescriptive rights are quite as strong as that of the understanding itself. It is a result, for example, of the play of organism and environment that sugar is sweet and that aloes are bitter, that the smell of henbane differs from the perfume of a rose. Such facts of consciousness (for which, by the way, no adequate reason has ever yet been rendered) are quite as old as the understanding itself; and many other things can boast an equally ancient origin. Mr. Spencer at one place refers to that most powerful of passions — the amatory passion — as one which, when it first occurs, is antecedent to all relative experience whatever; and we may pass its claim as being at least as ancient and as valid as that of the understanding itself. Then there are such things woven into the texture of man as the feeling of awe, reverence, wonder — and not alone the sexual love just referred to, but the love of the beautiful, physical and moral, in nature, poetry, and art. There is also that deep-set feeling which, since the earliest dawn of history, and probably for ages prior to all history, incorporated itself in the religions of the world. You who have escaped from these religions in the high and dry light of the understanding may deride them; but in so doing you deride accidents of form merely, and fail to touch the immovable basis of the religious sentiment in the emotional nature of man. To yield this sentiment reasonable satisfaction is the problem of problems at the present hour. And grotesque in relation to scientific culture as many of the religions of the world have been and are — dangerous, nay, destructive, to the dearest privileges of freemen as some of them undoubtedly have been, and would, if they could, be again — it will be wise to recognize

them as the forms of force, mischievous, if permitted to intrude on the region of *knowledge*, over which it holds no command, but capable of being guided by liberal thought to noble issues in the region of *emotion*, which is its proper sphere. It is vain to oppose this force with a view to its extirpation. What we should oppose, to the death if necessary, is every attempt to found upon this elemental bias of man's nature a system which should exercise despotic sway over his intellect. I do not fear any such consummation. Science has already to some extent leavened the world, and it will leaven it more and more. I should look upon the mild light of science breaking in upon the minds of the youth of Ireland, and strengthening gradually to the perfect day, as a surer check to any intellectual or spiritual tyranny which might threaten this island than the laws of princes or the swords of emperors. Where is the cause of fear? We fought and won our battle even in the Middle Ages: why should we doubt the issue of a conflict now?

The impregnable position of science may be described in a few words. All religious theories, schemes, and systems, which embrace notions of cosmogony, or which otherwise reach into its domain, must, in so far as they do this, submit to the control of science, and relinquish all thought of controlling it. Acting otherwise proved disastrous in the past, and it is simply fatuous to-day. Every system which would escape the fate of an organism too rigid to adjust itself to its environment must be plastic to the extent that the growth of knowledge demands. When this truth has been thoroughly taken in, rigidity will be relaxed, exclusiveness diminished, things now deemed essential will be dropped, and elements now rejected will be assimilated. The lifting of the life is the essential point; and as long as dogmatism, fanaticism, and intolerance are kept out, various modes of leverage may be employed to raise life to a higher level. Science itself not unfrequently derives motive power from an ultra-scientific source. Whewell speaks of enthusiasm of temper as a hindrance to science; but he means the enthusiasm of weak heads. There is a strong and resolute enthusiasm in which

science finds an ally; and it is to the lowering of this fire, rather than to a diminution of intellectual insight, that the lessening productiveness of men of science in their mature years is to be ascribed. Mr. Buckle sought to detach intellectual achievement from moral force. He gravely erred; for without moral force to whip it into action, the achievements of the intellect would be poor indeed.

It has been said that science divorces itself from literature. The statement, like so many others, arises from lack of knowledge. A glance at the less technical writings of its leaders — of its Helmholtz, its Huxley, and its Du Bois-Reymond — would show what breadth of literary culture they command. Where among modern writers can you find their superiors in clearness and vigor of literary style? Science desires no isolation, but freely combines with every effort toward the bettering of man's estate. Single-handed, and supported not by outward sympathy, but by inward force, it has built at least one great wing of the many-mansioned home which man in his totality demands. And if rough walls and protruding rafter ends indicate that on one side the edifice is still incomplete, it is only by wise combination of the parts required with those already irrevocably built that we can hope for completeness. There is no necessary incongruity between what has been accomplished and what remains to be done. The moral glow of Socrates, which we all feel by ignition, has in it nothing incompatible with the physics of Anaxagoras which he so much scorned, but which he would hardly scorn to-day. And here I am reminded of one among us, hoary, but still strong, whose prophet voice some thirty years ago, far more than any other of this age, unlocked whatever of life and nobleness lay latent in its most gifted minds — one fit to stand beside Socrates or the Maccabean Eleazar, and to dare and suffer all that they suffered and dared — fit, as he once said of Fichte, "to have been the teacher of the Stoa, and to have discoursed of beauty and virtue in the groves of Academe." With a capacity to grasp physical principles which his friend Goethe did not possess, and which even total lack of

exercise has not been able to reduce to atrophy, it is the world's loss that he, in the vigor of his years, did not open his mind and sympathies to science, and make its conclusions a portion of his message to mankind. Marvelously endowed as he was — equally equipped on the side of the heart and of the understanding — he might have done much toward teaching us how to reconcile the claims of both, and to enable them in coming times to dwell together in unity of spirit and in the bond of peace.[1]

And now the end is come. With more time, or greater strength and knowledge, what has been here said might have been better said, while worthy matters here omitted might have received fit expression. But there would have been no material deviation from the views set forth. As regards myself, they are not the growth of a day; and as regards you, I thought you ought to know the environment which, with or without your consent, is rapidly surrounding you, and in relation to which some adjustment on your part may be necessary. A hint of Hamlet's, however, teaches us all how the troubles of common life may be ended; and it is perfectly possible for you and me to purchase intellectual peace at the price of intellectual death. The world is not without refuges of this description; nor is it wanting in persons who seek their shelter and try to persuade others to do the same. I would exhort you to refuse such shelter, and to scorn such base repose — to accept, if the choice be forced upon you, commotion before stagnation, the leap of the torrent before the stillness of the swamp. In the one there is at all events life, and therefore hope; in the other, none. I have touched on debatable questions, and led you over dangerous ground; and this partly with the view of telling you, and through you the world, that as regards these questions science claims unrestricted right of search. It is not to the point to say that the views of Lucretius and Bruno, of Darwin and Spencer, may be wrong. Here I should agree with you, deeming it indeed certain that these views will undergo modification. But the point is, that, whether right or wrong, we claim the freedom to discuss them. The

[1] Tyndall refers here to Carlyle. — *Editors.*

ground which they cover is scientific ground; and the right claimed is one made good through tribulation and anguish, inflicted and endured in darker times than ours, but resulting in the immortal victories which science has won for the human race. I would set forth equally the inexorable advance of man's understanding in the path of knowledge, and the unquenchable claims of his emotional nature which the understanding can never satisfy. The world embraces not only a Newton, but a Shakespeare; not only a Boyle, but a Raphael; not only a Kant, but a Beethoven; not only a Darwin, but a Carlyle. Not in each of these, but in all, is human nature whole. They are not opposed, but supplementary; not mutually exclusive, but reconcilable. And if, still unsatisfied, the human mind, with the yearning of a pilgrim for his distant home, will turn to the mystery from which it has emerged, seeking so to fashion it as to give unity to thought and faith — so long as this is done, not only without intolerance or bigotry of any kind, but with the enlightened recognition that ultimate fixity of conception is here unattainable, and that each succeeding age must be held free to fashion the mystery in accordance with its own needs, then, in opposition to all the restrictions of Materialism, I would affirm this to be a field for the noblest exercise of what, in contrast with the *knowing* faculties, may be called the *creative* faculties of man. Here, however, I must quit a theme too great for me to handle, but which will be handled by the loftiest minds ages after you and I, like streaks of morning cloud, shall have melted into the infinite azure of the past.

XI

TRUTH AND IMMORTALITY[1]

CHARLES FLETCHER DOLE

[Charles Fletcher Dole (1845–) is a well-known New England clergyman and a writer of note on religious and sociological subjects. He graduated from Harvard in 1868 and from the Andover Theological Seminary in 1872; four years later he became minister of the First Congregational Church (Unitarian), at Jamaica Plain, Boston, and has continued in that position to the present time. Dr. Dole has been actively identified with a number of religious and social movements and organizations, was Ingersoll lecturer at Harvard in 1906, and is the author of many books and articles in his special fields of interest.

Truth and Immortality, published in the *Harvard Theological Review* for April, 1909, is a reasoned argument in support of the belief in a future life; and as such, it may be taken as a reply to the philosophy of such men as Huxley and Tyndall, who find no justification in scientific truth for the hope of immortality. Dr. Dole argues that the hope of immortality, far from being without the province of truth, is, in fact, part and parcel of that province; that it underlies our conception of an ordered and purposeful universe, and is essential to harmonious human development.

Modern thought on the subject of future life by theologians, scientists, and philosophers, is admirably represented in the series of Ingersoll lectures which have been given annually at Harvard since 1896.]

ONE everywhere finds people who have given up the hope of immortality or else regard it with extreme doubt. Forms of belief with which it has been associated have proved unthinkable to them. Worse yet, to hope for immortality seems not to be loyal to truth. "We want reality," they say. "We propose to face the facts; we demand honest thinking. We have no use for dreams, however pleasant; we wish only truth." Mr. Huxley's famous letter to his friend Charles Kingsley expresses

[1] Reprinted by permission from the *Harvard Theological Review*, April, 1909.

this attitude. Here is a man who, in the greatest of sorrows, feels obliged to put away comfort and hope in obedience to the demand of truth. It is not possible to divide his mind into exclusive compartments, and to indulge an ancient religious emotion on one side of himself, while on the other side he remains the conscientious student of science. He must keep his integrity at any cost to his feelings. No one can help admiring this type of mind. A multitude of people who have nothing like Mr. Huxley's rigor of conscience are immensely moved by the attitude of such men as he. If he could see no truth in immortality and had to remain an agnostic about it, why should we not be agnostics also?

I believe that Mr. Huxley was right in his insistence upon truth and conscience. I believe also that he was mistaken as to the relation between truth and the hope of immortality. I shall try to show in this paper that the hope of immortality, so far from being excluded from the realm of truth and reality, is involved in the essential structure of this realm. I shall have occasion to point out considerations to which I see no evidence that Mr. Huxley (and I use his name as the type of a considerable class) ever paid attention. The fact is, that the thinking men of the last century suffered an immense reaction in the tide of the new thoughts that came in with the scientific period of development. The first net impression was the sense of a loss of the fabric of ancient traditions and religions. It was not easy immediately to adjust one's eyes to the new light and to estimate what kind of a universe had been brought to view. I cannot doubt that if such minds as Mr. Huxley had only gone on to urge their splendid courage and loyalty a few steps farther, they would have come to the same constructive conclusions which their somewhat cautious negative work has vastly helped us of a later generation to reach.

Let us, however, put aside the subject of immortality for a while, and first ask the straight question: What is truth? Or, what constitutes reality? As with most ultimate questions, this is not easy precisely to say. The ultimate things appear always

to be larger than our definitions. In a general and quite undogmatic sense we may say that truth is that which fits into its place or order. The untrue is that which does not fit, or match. We are using here a parable taken from outward things, but our thinking is none the worse because it falls into this form of illustration. Does not all thinking proceed by figures and symbols?

We make a simple statement: The earth is round. This is true, so far as the description "round" fits the shape of the earth. We know that it is not exactly true. Why is it not quite true? Because we have an idea of perfect roundness into which the earth, as it is, does not fit. We describe an occurrence, an accident perhaps, which we have witnessed. Our account may possibly express our view of the facts. Yet we can almost never make our description tell the exact story of what happened. Our senses are imperfect instruments of observation; our memories may play us false; our language is only a makeshift, and never quite conveys even our imperfect impressions of an event. Neither do our words — a system of makeshift symbols — always mean the same thing to another as they mean to us. No two pairs of eyes perhaps witness exactly the same occurrence. The question already begins to arise: Why, since the truth is so elusive, should we be so strenuous to insist upon it?

Our idea of reality is involved with our notion of truth. We hold that, behind impressions and sensations and the words that describe our feelings about things, there is some substance (call it matter or spirit as you please) which, so far as our description of it is exact, corresponds to, or matches with, the description. We do not pretend that we know or can know this substance, as it is, but we think or assume that we know it at least in the form of its relations to us, and that its relations, as we discover them, translate the reality on the whole fairly well, as if by picture language, for all practical purposes.

We assume, too, or surmise (may we dare to say that we know?) that everything in this realm of reality that lies just behind all phenomena is related or matched together with everything else.

To know the truth would be to know how things fit or are related together. To know all about a grain of sand would thus be to know all about the world. At any rate the phenomena — the picture language with which our minds are impressed through our eyes and ears and nerves of sense — come to us in the most elaborate network of relations, sometimes of mere juxtaposition, sometimes in relations of what we call cause and effect, always in a certain succession in time, always also suggestive of a unity, or order, or harmony, to which, if we knew enough, all would be found to belong. In other words, we surmise that truth, if we could get at it, would be the complete description of the order and unity of the world in and through all its parts and its motions.

We are now sailing audaciously over great depths in thought. If any one cares to object and question: How dare you surmise and assume so much? How dare you speak of fitnesses and order and relations of unity? we have to reply that we cannot help making these bold assumptions if we are going to think at all, or to investigate, or even to live sanely. Our interest and impulse to observe, and still more to try to order our observations into the form of science, spring from our conviction, or faith, that there is order and significance and unity to be discovered — in other words, that this is not chaos in which we live, but a universe. This is a faith; it certainly is not "solid fact" or knowledge. But the very idea of truth is bound up with the faith. If there were no reality corresponding to our view of things, if things did not fit together so as to spell out into intelligible meanings, if the net impression of the world was only an ash heap and not a universe, what possible sense would there be in urging the necessity of truth? Truth is a postulate of faith, albeit an intellectual and not a supernatural kind of faith.

We know more about our own minds than we know of anything outside of us. Our minds impose certain forms of thinking upon us. Our minds instinctively work on the lines of order. They tend to expect relations of fitness and harmony. They are prompted by all kinds of stimuli to set up standards and ideals.

They act under certain universal categories to inquire, Where? When? Why? To use a figure of speech, we may say that they behave like a kaleidoscope, which, turn it as you will, imposes color and order on the material within it. So it is the nature of intelligence to reflect everything which falls upon its mirror in forms of order. The mind seems to be made to construct, that is, to fit its material together, as a poet or architect does. The intelligence looks for and expects significance and unity. Even before it gets demonstration, it tends to proceed on its faith that its world is reasonable, or, at least, that there is a standard of reason and fitness into which, if things do not match, they are futile. Yes. Even when the doubting mind in its pessimist mood pronounces the world an illusion, or when the agnostic mind halts in doubt whether the universe means anything to man beyond his burial ground, this very pronouncement of desperation proceeds on the marvelous conception of a possible world of order and beauty with which, as a standard, the actual world is tried and found wanting.

Thus the most negative "truth" gets its meaning out of the depths of an intelligence that cannot help thinking in terms of reason and unity. Why tell the dismal truth, some one asks, that all things are vanity? Because the mind conceives the idea of a real world which puts a vain world to shame. It is the faith in at least the possibility of a real world that gives character to criticism, blasphemy, and denial.

What we call "reality," at every point, when we try to approach it, proves to be beyond anything that we distinctly know or can define. Our thought of it arises, indeed, out of the region of our senses and by the aid of our instruments of research. It begins with "solid facts" (which are not solid at all, but merely our consciousness of relations in phenomena) and passes over at once into a realm, absolutely necessary to our thinking and living, and yet always beyond the touch of our senses. We have so many things, *a*, *b*, *c*, etc., given us as our working material, and presently we find *x*, *y*, *z*, into which the simple deliverances of our senses have been irresistibly transformed. The realm of

what we call known values in things is not so real or necessary to us as is this realm of thoughts, of order, of fitnesses and unity, with which alone truth is concerned. Truth is thus always $a + x$ or $b + z$; that is, the thing we get by our senses plus what our minds make of it by the act of the faith of reason, in trying to fit it as well as we can into a place in our realm of reality.

See how true this is in the very beginnings of our thought of the visible world. We call a stone hard and rough. This is the a and b of our knowledge. But we go a step further, and every atom of the stone is in motion. These atoms are unknown creations, x and y. We try to catch the atoms and weigh them and tell in how large platoons they march together. Presently we are not contemplating atoms at all, in the sense of hard bits of stuff. We are in the presence of infinitesimal tornadoes of force. Whatever now we decide to call this substance of the rock, whether matter, or atoms, or centers of force, or spirit, it is the name for our faith in an almighty and wonderful reality rather than an exact description of a solid fact that we know all about. Our conclusion — that is, the truth about matter — is the best makeshift or working theory that we can reach to fit together our experiences of what matter does for us. Truth challenges our modesty as much as the accuracy of our observation and description.

Take another simple statement of fact. We say that a certain line drawn on the paper is not straight. How do we know this? No one of us has ever seen a perfect line; yet we carry in our minds the idea of straightness, or of circularity, which has only been suggested to us, but never realized. In the realm of our thought, the idea of the straight line or the perfect circle is essential. It is more real, though invisible, than any line that we see. We are so made that, while intelligence survives, this idea will live with us when all visible lines are expunged. Truth in lines and forms is measured by this ideal and most actual standard. However this standard may have grown out of our experience, it always transcends experience. It is indeed a necessity of our thought.

We catch sight now of a group of standards and ideals, all different from the actual "facts" of life, related to the facts, suggested perhaps by the facts, but always above the facts, and quite as essential to our practical use of the facts as the yardstick or the standard pound is essential in buying and selling. Every utility or convenience, a comfortable dwelling, a hygienic system of plumbing, a proper suit of clothes or pair of shoes, presupposes an ideal, invisible standard of thoroughness and excellence of workmanship. We say that the suit fits; we say that the foundation wall is true. We proceed at every practical issue by ideal standards which no work of man ever completely reached. The ideal of what a house or a ship should be is more real than the actual construction. Moreover, we believe that, if we knew more, we should see even a nobler ideal of fitness and truth than that by which we now measure our workmanship. Our ideal is like the asymptote, always approximating, but never quite touching, the invisible ultimate ideals toward which our faith, guided by each new access of experience, climbs.

We are introduced immediately into the realm of beauty. To the eyes of the artist or poet there is nothing so actual as the vision of beautiful objects that the visible universe only suggests, but never quite realizes, or can realize, in material form. Our true humanity has not begun till we love these visions of beauty and strive to keep their company. Thus, there is nothing in the world more wonderful and mysterious than the facts, the forms, and the power of music. It arises out of noises and sound waves, but it consists in harmonies which ally it to the ideal kingdom of mathematics. Its delight is in the fact that it fits and satisfies our ears. It demands truth or fidelity in the musician; it depends upon the attunement and the perfect time of his instrument. The standard is always beyond his best effort. This standard, which no man ever reaches, is more real than any of his work.

Why must the artist or the musician obey the law of this quite ideal vision or standard? Why must the violinist play up to a degree of perfection that no one can reach? Why must the painter follow his vision, though he may never be thanked or re-

warded, and though the work of the "pot-boiler" may bring him cheap fame and pay? The fact is that man, at his best, belongs to an ideal world, which, once being entered upon, becomes more real than the solid ground under his feet. There is no truth, except within this region of invisible realities.

All the moralities now face us with their commanding presences. "Duty, stern daughter of the voice of God," is here. Conscience sets up its imperative, the strange word "ought." We can get along quite well for a little way with a superficial explanation of morality. We may say that it is merely customary conduct, imitating the traditions and usages of a tribe or a family. We may say that it arises out of social expediency. All this is true. The point which we urge is that all morality, however simply it arises, moves up into the realm of ideal values. In other words, truth in morals is more than the mere fitness of an action to a custom or tradition or an act of legislation; it is the effort to fit a standard or ideal that no words, least of all the terms of an enactment, can define. Take Mr. Haeckel's insistence upon the scientist's duty to say what he thinks. You cannot measure this duty in terms of expediency, any more than you can rate a beautiful painting in so many dollars. You cannot prescribe how far the scientist must go in his telling the truth, any more than you can say how far the musician shall go in his effort after perfection of tone and harmony. You cannot prove that it will do Mr. Haeckel any material good to tell the truth, or even that his truth will do the world any good. Yet we all agree with Mr. Haeckel that he must tell the truth, even if the whole world holds up its hands in horror at him. This idea of an absolute or infinite duty to truth is in another realm from that of the "solid facts" of the man on the street. It belongs in the realm of the ideal and invisible, and what, for want of any better term, we call the spiritual. But the man on the street applauds it, and believes in it, and owns that it is more real and permanent than the stones under his feet. Yes, it is a part of his being.[1]

[1] The lack of clear recognition of the fundamental idea of truth in Mr. William James's *Pragmatism* is perhaps the chief fault in his treatment.

Consider, again, the ideal of wedded love. There is nothing that we behold more real and yet more wonderful. It has its rise on the animal side of us. It is related to the bodily senses and to passion. It has a strange, gross, sensual history of ages behind it. It hardly yet more than fairly emerges into the higher consciousness of the average man. The woman is still a chattel or plaything in the eyes of multitudes of brutish men. Nevertheless, here stands the ideal of true marriage and a love mutual, loyal, devoted, constant, undying, which no two lovers ever succeeded altogether in compassing, yet without which real love hardly exists. This love already orders thousands of homes. It commands the consciences of a host of people who only feebly live up to its splendid "ought." It brings joy and satisfaction wherever men and women obey it. Under its beneficent rule, the passions and senses themselves are at their highest perfection of use, and children are born under auspices most favorable for their health and happiness. The word "home" gets all its wealth of significance from this ideal reality of love.

What, now, is truth in the marriage relation? It does not merely mean to hold to a verbal promise or to obey the laws of the state. It means nothing less than fitness of act and thought, and of temper also, to an ideal standard beyond and above all words. Once seeing this ideal, we become base and unworthy to fall away from it. Who in England had a loftier sense of this reality than Mr. Huxley had? What a world of ethical reality he lived in and belonged to!

Consider a moment the almost new sense of humane social relations that slowly tends to prevail among men. You can always make out a case for the grim rule of selfishness, more or less enlightened. You can say that the law of life is the survival of the fittest; you can translate human realities into animal, military, and commercial terms. You can say, "Every man for himself," and "Every man has his price." Why is it that no man can ever be content in saying such things? No man who is a man really believes that these things are quite true. What, then, do we all, at our best, hold to be true of social relations?

We believe in an unwritten law, quite ideal, beyond the range of all human rewards or penalties. This law bids us each and all to share our good things with one another; it bids us be ready to suffer and die for the common good — not merely for the nation, but for humanity, for those whom we have never seen, for those unborn. It bids us let our own selfish will go, in the name of a universal good will. It sets up martyrs rather than kings, Jesus rather than Cæsar, Lincoln and not Napoleon, for the admiration of the world There is no true man who does not, at his best, bow to this kind of ideal. Here is a touch of the infinite in man. There is no finite range to the bounds of his duty.

There is a philosophy that undertakes to explain everything in terms of mechanics. Whatever a man does, or thinks, or feels is registered in the changes of motion in nerve cells. First comes the change in a cell, as the man's senses are moved from without and then, as if pulled by a wire, thought and consciousness follow. No one doubts the fact of this registry of deeds and thoughts. Does it explain anything? Does it not rather leave a world of mystery still to be explained? For consciousness is infinitely more wonderful than motion or mechanics, which in no way explain consciousness. The great overpowering fact of life is not the mechanical motion in a man's brain, but the vast range of his consciousness. His life, however related to the brain cells, is not real life at all till it rises into consciousness. All reality, in fact, lies in the field of consciousness, without which we could not even know anything about the mechanics of motion or the elementary differences between greater and less, higher and lower, better and worse.

Moreover, so far as consciousness tells any truth, it tells us of moral and spiritual sequences that daily alter the flow of our lives, and in the aggregate make and alter the meaning of history. The story of a hero, a bit of a psalm, "a passage from Euripides," strikes our consciousness, and we become, at least for the moment, changed men in our conduct. The alteration of conduct, itself touching material facts, perhaps costing hard-earned money, or risking labor and life, is a spiritual or humane or social change

in us. Its value consists in ideal terms, such as happiness, contentment, satisfaction.

We have used the word "happiness." What is this thing that everyone wants, that no one can exactly define, that begins in the plane of creature comforts, and rises into all manner of ideal relations? Our thought of what truth is helps us to answer this question. Truth is fitness, harmony, the unison of relations. The happy life, then, is the life in which all the parts fit and match and make unity. The body is well and serves the man; the mind is sane, the conscience is enlightened and prompt to act, the man is full of good will, expressing itself in kindly words and generous deeds. In short, the happy life conforms to, and corresponds with, an ideal beyond and above itself, never yet exactly seen, but the most real furniture that exists in every mature man's consciousness. The perfect truth of manhood is more than the man reaches, yet the reality of the man himself consists in his reaching toward this truth and trying to fit himself to it. His highest satisfaction lies in this effort. In this type of effort all the experiences of his life, even his failures and sorrows, tend to blend and harmonize into the unity of a real person. Consciousness tells us nothing more sure than this, and the more surely, the more often we have made the endeavor. We are happy, we reach approximate unity, in and through every moment of hearty good will. To be true to a man's standard of manhood is the essence of the happy life.

Here again, as before, truth is both a and x. It is that which fits facts which we have experienced, and it is also an item of faith or venture; it is that which fits into an ideal beyond actual experience. This transcendental element of truth, this venture from the known towards the higher and unknown, is precisely what gives truth its character of reality.

Another idea has been, and is still, immensely important as a factor in the highest human activity. It is the idea of progress. It is related intimately to the great scientific thought of development and evolution. Men think that the world is better than it once was, and they believe or hope that it will grow better. This

is not an unpractical thought. It adds value, worth, and motive force to action. It is a spur to morality and the noblest forms of devotion. The world and human life are worth more in a world that grows better than in a world that has stopped growing and may even be on the decline. Though I ought to be just, floating on a raft and waiting to be annihilated, yet I can have no enthusiasm for justice in such a condition. Give me the hope that my justice may bring rescue from the raft, even though to save others at my own loss, and my whole soul rises to do justice. So men are stirred to activity in the hope of human progress, not for their own sake, but for generations to come. This hope of progress moreover is illimitable. Draw a line anywhere and put an end to it; translate the efforts of men into any final form of death, however many thousands of years away, and the heart goes out of their work. There is an infinite element in the thought. It seems to point to something beyond the terms of mortal life. It is not *a*, however multiplied, but *a plus x*. The unknown part of it makes it true.

We have already suggested the bold but quite necessary venture of thought that we make in speaking of a world-order, or "universe." We thereby express our faith that all things fit together and make one world. Thus all the sciences are one science. Thus all processes are a part of a universal order. This is faith or trust quite as much as knowledge. But, as Mr. Tyndall has happily shown, science proceeds by leaps of inspired imagination, and arrives at its conclusions in advance of its ammunition trains and baggage wagons. Thus faith proceeds in the face of superficial difficulties. At first blush no one sees a universe, but rather the theater of conflicting powers. The savage's gods are in conflict. Yet we hold, for substance of truth, that all forces are one. Doubt this, and the universe itself begins to dissolve, and truth to disintegrate.

The mightiest of all generalization follows, inextricably involved throughout with all that we have said. It is the thought of God. The word or name is of little moment. We take such words as we have at hand — only symbols at best for a concep-

tion which no words can do more than suggest. Our thought of God is only the extension and perfecting of our vision of a world-order or universe. It is equally necessary; it grows out of the other; it is born of and arises out of our science and experience. It seems compelled upon us by our thought, unless we stop thinking altogether.

Our thought of God is the expression of our sense of the necessary unity of all the values, ideals, and standards which give meaning to life. Order, beauty, intelligence, goodness, truth, love, are so many names of God. They all seem to go together. The realm of beauty is not alien to the realm of righteousness, but one with it. The realm of things — atoms, forces, motions — is not alien to the realm of consciousness, thought, order, ideals, justice, goodness, but subsidiary to it and one with it.

This carries us further. The thought of God means that the world outside and within, phenomena and consciousness also, is significant. It is an intelligible world — intelligence appealing to, and reflected upon, intelligence. This is the idea that men have expressed in the thought of a purposeful world. They have meant to express the conviction that no blind fate, but an all-inspiring reason, ruled the universe. They meant a conviction that the universe is good, not evil — good in its whirling forces, good on the side of its omnipresent beauty, good in the working of its supreme intelligence. They meant that even seeming evil will be found, when once we know enough, to fall under the compelling law of good.

This is bold to think, but necessary if we think at all. We may not say that we know God instinctively. But we are compelled by the quality and framework of our intelligence to think in the terms that sooner or later signify God. The thought of God, in the ultimate analysis, is imposed on our thinking, first, as crudely suggested by the facts of life; then, as a form of intellectual faith; then, next, as required to meet the demands of that ideal realm of ethics and truth to which as men we belong. World forces running to evil, a universal intelligence without purpose or meaning, consciousness everywhere yet void of reality,

beauty everywhere expressing nothing real behind it, morality, virtue, conscience, and duty in us pressing us to be willing to die for a principle or an ideal, and yet nothing moral in the universe to match with and correspond to this universal pressure; love in us rising to a sense of infinite devotion, and no infinite love above or beyond us — these things do not fit together, are not intelligible, do not therefore make truth. Our thought of God is our way of affirming that the universe is real, is one, is beautiful, is good, is enduring.

This faith in the truth of the universe, that is, in God, is akin to the faith that we have in ourselves. We are a mystery and enigma to ourselves. Where are we? Who are we? What are the bounds of our personality? How can we be described or defined? And yet we believe in ourselves, the invisible persons, inhabiting space, using atoms and forces, and dwelling in consciousness. We believe in ourselves, the microcosms, much as we believe in God as the universal order. We are what we are, and real persons, by virtue of thought, beauty, good will, unified together and entering into a vast conscious or vital order of goodness.

We deny God, and we presently cut at the roots of our faith in ourselves. What is real, if the universe is not real? What is good, if the life out of which we spring and of which man at his best is the highest and most illustrative fruitage that we know, is not good? What is worth while — science, or justice, or love, much less food and comfort — unless the standards hold good by which we set values? Now God is our name for the standards that give life its meaning.

We have taken a very long circle to reach the idea of immortality. But here at last it stands, as inevitable as any of the other items of reality which go to constitute life. Truth, we see, is that which fits and makes harmony and unity. It is whatever is necessary to make the order of thought complete It is whatever belongs to the realm of reality. Truth is not merely what we see embodied, but beyond our immediate sight — what our faith in the ultimate reality foresees by anticipation. This fact

has held good at every step which we have taken. Truth was always more than we could define or demonstrate. It was also what our intelligence demanded in order to fit things together and make sense of them.

It need not disturb us in the least to be told how the hope of immortality may have arisen. Grant that it had its origin in material sensations, in the visions of savages, in the repeating of ghost stories. What human thought, art, or science, did not thus spring out of the earth, and take material shape to clothe itself? The indisputable fact remains that there is an immaterial, and yet real, order of life, which characterizes man as human. There is a hierarchy of values, leading up to the True, the Good, the Beautiful. We cannot throw them aside or contemn them, and keep our humanity. We cannot belittle truth or reason and logic — the architect's plan of the Cologne Cathedral, the builder of the Brooklyn Bridge, the painter of the Dresden Madonna, the exiles for conscience' sake who founded America, the integrity of honest fathers, the love of our mothers, the death on the Cross. "Here are the infinite values," say all of us, or else we cease to be men.

We belong to a kingdom of values, an order of good, a universe. Grant this. What of it? We cannot think then that a man dies like a fly, and that is the end of him. We cannot think that the sweet mothers, and the brave, true-hearted men whom we have known, are of no more use in the order of the universe than the whirling dust in the streets. We cannot think that the life of this planet, with its gigantic cost in blood and sorrow and tears, with its glorious victories of truth, freedom, justice, and love, will all be measured up, in a few thousands of years, in the mute story of the moon — a dead world without a conscious intelligence to shed a tear over it. This is to pronounce the doom of the universe, to break the order and beauty, to bring intelligence to confusion, to deny serious values, and to dethrone reality.

The intellect in us, the sense of right, the instinct for order, the love of beauty and goodness — all that makes us worthy as

men — the reality in us reacts against an unreal world. The hope of immortality is our sense that the world may be trusted, that the real values abide, that the sum of all life is not death, but life yet more noble.

This is not a strange and unscientific statement. It is quite like the statement of our senses touching the straightness of a line or the beauty of a face. We know it, but we cannot prove it to a blind man. The standard of our judgment is in our own nature. The one thing is true or fits, and the opposite does not fit or correspond. We cannot help trusting this judgment. It is all that we have to trust. Moreover, in this instance, as with the judgment of the line or of a righteous act, there tends to be a great and growing consensus of similar judgment. The same mind everywhere tends to see something real in the hope of immortality.

Another harmony now appears. We have seen that a man has a certain integrity as a person. At his best, all his powers working in unison, he is at the acme of efficiency and happiness. Three great spiritual elements go to make such a man. One is faith, or trust, for example, in the validity of law, in the essential righteousness of the world, in the humanity of one's fellowmen — in a word, in a good God. Another element of the complete life is love, or good will. The man at his best pours out, or expresses, his good will in all his acts and words, in his face and gestures. Again, the man needs hope in order to be at his best. He will work best, he will best keep his health, he will do most good to his fellows, he will be most truly a man with hope in his eyes.

We do not say what the object of his hope must be. It surely need not be selfish or personal. But it must be worthy of his manhood and fit the terms of manhood. We will not insist that his hope shall rest on the idea of immortality. But it must rest on reality. It needs to go up into the ideal realm of values, where the idea of the infinite and the immortal belong. The man cannot be satisfied for long with any hope that is sentenced to ultimate death.

Now we hold that whatever is essential to the best and most

harmonious life of a man, without which he is reduced in his manhood, deserves to be trusted as true or real. The immense presumption is in its favor. If hope is one element of life, then there is that which corresponds to hope. The hope is entitled to "the benefit of the doubt." If a grand hope is needful to a noble life, then we hold that whatever substance corresponds to the hope will be noble also. True, this is faith again; but the same kind of faith which we have found to be inseparable from all valid thinking.

We are often asked if we can believe in personal immortality. The truth is that in the highest region of thought all terms and definitions are inadequate. We felt this even in our glimpse at the mystery of substance, or matter. We use the terms *atoms* and *wave motions* and *vortices*, not as sufficient to express the reality, but as the best modes of imaging to ourselves the nature of the reality in which, in some sense, we firmly believe. Substance, we say, seems to behave like groupings of orderly atoms, or like whirling forces. It behaves as if waves traversed it. So we say with the use of the term "personal immortality." This is the best form of thought we know to express our sense of the abiding reality of a noble life. Thus *In Memoriam* rises, in the face of all doubt, to the conviction that the loved friend can never die. As we see no other way to conceive of substance except under the figure of some form which we know, so we see no possible way to conserve immortal values in persons except what we name personal immortality. As substance may prove to be more valid and wonderful than any of our figures of speech, so immortality may prove to be richer and more satisfying than our name for it suggests. We cannot believe it to be less than our name for it. Meanwhile we have to go on using the words that serve to convey the utmost positive sense of reality. That they are popular words does not hurt their value, but rather enhances it. Why should not the popular instinct go in the direction of the best constructive and philosophical thought? Here is another fitness or harmony such as we find everywhere in our world. What kind of philosophy — that is, love of truth —

would it be that proved to serve no end except to destroy man's sense of worth and reality! This would be, in the name of truth, to deny the existence of truth.

We have proceeded very much as men do in building a structure, for example, an archway. We have used the best material. We have set the base of our structure into the concrete matter of all sorts of facts of life. We have laid logic and reason for foundation stones. We have built the values of order, beauty, justice, truth, humanity, and love into our work. We have found a place for every noble experience of sympathy, of sorrow, of victory, for every aspiration, for every mighty standard. All the high things that make life worth living are in our structure. The name of the structure is the universal life; it means the integrity of man and the reality of God.

There is just one stone which we need to make the arch complete. It is the keystone of the work. It is small, compared with the massive foundation; one might possibly think that the columns would stand apart by themselves. They would stand for a while if no great stress were put on the work. But our sense of form and perfection, that is, our sense of truth or fitness, calls for the keystone in order to join the piers and springers together. Our sense of necessity also and our knowledge of the action of forces call for the keystone. Our arch will never be safe till we have put that one binding stone into place.

So we judge of the hope of immortality. It belongs with and fits into a structure; it is that without which you can never make the beauty or unity last, without which also the structure tends to fall apart. The arch is not yet *true* till every stone fits into place. Put the hope of immortality into the crown of the values of life, and they cohere, and all of them take on new significance. Each stone built into the structure is worth more than it is worth by itself in the field. Each stone is worth still more when the structure is finished. Refuse your keystone the place for which it seems to be fitted exactly, and you have put every precious value at risk. You are not so sure of a good God any longer. Human life is no longer so significant as it was before. You have

lost worth out of love and friendship, and leveled them toward the dust. You have reduced patriotism and philanthropy to finite values, each with its price. You have taken buoyant joy and enthusiasm out of all mature men's life, and threatened them with an earlier old age. You have shaken the bases of morality and put righteousness into terms of comfort and policy. You have bidden the artist, the poet, and the prophet laugh at their visions and doubt their validity. You have distinctly shaken man's faith in logic and reason, and brought all intellectual processes into discredit. For all that logic is for is to bind things into coherence and unity. All values, in fact, belong in the ideal realm; they go together and make a unity, or else they fall together.

Fall together? No! No man can make the great values fall, or take them apart, or hurt one of them. A man can hurt and mar his own life by his distrust, but he can mar no reality. No man's doubt can make justice, beauty, truth, love, less than real. These things are ingrained in our nature. We need only to trust them. They constitute an infinite order. They validate themselves the more we throw our weight upon them. The hope of immortality is simply the keystone, which always stands fast, beyond any man's doubt, at the crown of the structure. It fits its companion values, and they clasp it with their arms into a serene integrity. They bid us trust our lives upon the archway, which every value in the universe has joined to construct. We did not build the beautiful structure: we only found it.

What is excellent,
As God lives, is permanent.

I have wished to make it plain that the hope of immortality is not merely the concern of sentimentalists, ready to hug a pleasant delusion, much less of egoists, eagerly grasping after every straw of selfish comfort for themselves: it is the serious concern of all men who have other values at heart besides pleasures and money; of all who care for law and order, for true homes, for just government, and friendly society among men; of all who

love their fellows and struggle for human progress, having faith that such struggle is worth while; of all who love beauty, and find a noble worth in art and music; of all who think sanely, and have any sort of faith in a good universe—the poets, the artists, the thinkers, the statesmen, the multitude also of modest and high-minded men and women whose religion consists in acts of faith, hope, and love. The companionship of such persons, the memory of such persons, their faith and their deeds, bring you into, and leave you in, an attitude of hope. This world would not be a quite true world with the hope of immortality left out. This world needs nothing less than the hope of immortality in order to complete its integrity.

XII

LAW AND JUSTICE[1]

LEONARD TRELAWNEY HOBHOUSE

[Leonard Trelawney Hobhouse (1864–) has been since 1907 professor of sociology in London University. His place in the world of contemporary thought is secured by unusual breadth of intellectual vision and remarkable command of branches of study collateral with those in which he is specially interested. As a philosopher he is known principally through his *Theory of Knowledge*, and as a psychologist, through his *Mind in Evolution*. His sociological studies, however, particularly *Morals in Evolution* and *Social Evolution and Political Theory*, have probably brought his name more prominently before the intelligent reading public. It may be inferred from the titles of Professor Hobhouse's works that their strength lies in an exceptionally keen analysis of the bearing of evolutionary science upon the entire history of man and his institutions; this is illustrated impressively in his use of an enormous mass of scientific evidence from fields whose connection with his own is not always apparent to the casual student, and whose whole domain can be covered only by a scholar of exceptional erudition.

Law and Justice, which is the third chapter of *Morals in Evolution*, published in 1906, is an endeavor to trace from their beginnings in the most primitive society our modern conceptions of the legal and judicial functions of the state. It is necessary to call attention to the fact that a great amount of illustrative historical and anthropological evidence which is given as footnotes in Professor Hobhouse's volume has been omitted here. That these notes are both very valuable and very interesting goes without saying; but their bulk makes it impossible to reproduce them in this volume, save in a few cases where they are quite indispensable to the text.]

1. To the civilized man it seems the merest truism to say that the business of Government is to make and execute laws, to see that crime is suppressed, and that its subjects are maintained in

[1] Reprinted by permission from *Morals in Evolution*, by L. T. Hobhouse (Henry Holt and Co.).

possession of their just rights. Not only so, but the broad lines upon which justice is administered are to him so familiar and seem so clearly marked out by reason and common sense that if he were to think of their origin at all he would naturally imagine that here, if anywhere, we had to do with simple and elementary moral ideas, implanted in men by nature, and needing no training nor experience to perfect them. Thus, what could be more obvious to begin with than the distinction of civil and criminal justice? A may trespass upon the rights of B, but he may do so without fraud, violence, or any criminal intent. In such cases, the loss suffered by B must be made good, but no further punishment should fall upon A. That is, there is ground for a civil action. Or, on the other hand, in injuring B, A may have committed an offense against the social order. In that case he must be punished as a criminal, and is not to escape merely by making good the loss inflicted on B. He has offended society, and society insists on punishing him. But, further, if A is a wrongdoer, it must be proved that he is a responsible agent. He must have done wrong with intention, and, if so, he alone ought to suffer. Socially, no doubt, his fall must affect his innocent wife and children, but this is a regrettable result, not a consequence which the law goes about to inflict. Lastly, whether in a civil or criminal case, the function of the law is to set up an impartial authority, before whom the question is argued. Both sides are heard. Evidence is cited, and witnesses called, whose testimony the court is free to sift and weigh. Formalities and rules have to be observed, but apart, perhaps, from some which are archaic, they are devised mainly as safeguards against wrongful decisions, and the real business of the inquiry is to get at truth as to the material facts. In the end, the decision being given, the court can freely use the executive power of Government to enforce it.

Elementary as all this sounds, it is, historically speaking, the result of a long evolution. The distinction between civil and criminal law, the principle of strictly individual responsibility, the distinction between the intentional and the unintentional, the conception of the court as an impartial authority to try the

merits of the case, the exclusive reliance on evidence and testimony, the preference of material to formal rectitude, the execution of the court's decision by a public force — all are matters very imperfectly understood by primitive peoples, and their definite establishment is the result of a slow historical process. Perhaps no other department of comparative ethics gives so vivid an idea of the difficulty which humanity has found in establishing the simple elements of a just social order.

2. The growth of law and justice is pretty closely connected in its several stages with the forms of social organization that have been described. In quite the lowest races there is, as we have seen, scarcely anything that is strictly to be called the administration of justice. Private wrongs are revenged by private individuals, and any one whom they can get to help them. The neighbors interfere in the least possible degree, and how far a man's family, or the wider group to which he belongs, will stand by him, is a question which is decided in each particular case as its own merits, or the inclinations of those concerned, direct. But even at a very low stage this uncertain and fitful action begins to take a more definite shape. We find something that corresponds roughly to our own administration of justice, and from the outset we find it in two broadly distinct cases. There are occasions upon which a whole community will turn upon an offender and expel him, or put him to death. Sometimes, indeed, this is merely a kind of lynch law directed against a man who makes himself unbearable, or commits some crime which touches a general feeling of resentment into life. But beyond this there are at almost, if not quite, the lowest stages certain actions which are resented as involving the community as a whole in misfortune and danger. These include, besides actual treason, conduct which brings upon the people the wrath of God, or of certain spirits, or which violates some mighty and mysterious taboo. The actions most frequently regarded in this light are certain breaches of the marriage laws and witchcraft. The breaches of the marriage law which come in question here are confined to those transgres-

sions of the prohibitions of intermarriage, upon which primitive races lay such extraordinary stress. A mere violation of the marriage tie is generally in savage society a private matter, avenged by the husband alone, or by those whose duty it is to help him; but a breach of the rules of exogamy,[1] a marriage within the *totem*, for example, or a marriage outside the permissible class, is regarded as an offense endangering the community herself, and only to be wiped out by the extinction of the offender. A Central Australian tribe, for instance, which has no regular means of enforcing any law, will make up a war party to spear the man and woman who have married in defiance of these customs. Similarly, common action will often be taken to protect the community from witchcraft, obviously a terrible offense in a society which firmly believes in it. Among the North American Indians a public sentence was often pronounced and carried out by the chiefs in cases of sorcery, and sometimes also in cases of cowardice or breaches of the marriage customs. The punishment of witchcraft is as widespread as the fear of it, and, prompted as it is by the sense of a danger to the whole community, is often peculiarly ferocious, and directed to the destruction of every one connected with the offender.

The object of the community in exterminating the criminal is not so much to punish the wicked man as to protect itself from a danger, or purge itself from a curse. Achan takes the accursed thing, the thing which had been devoted to Jahveh. The taboo on the thing devoted is at once communicated to Achan himself as though it were a poison or an infection, or, to take another metaphor, a charge of electricity. It passes from the spoil appropriated to the appropriator, and no resource remains but to devote Achan with all his family and belongings, everything, in fact, which the accursed thing had infected. The Roman criminal, if his offense bore a religious character, was "sacer" — separated from men, made over to the offended deities. His goods were set apart (*consecratio bonorum*), for they were involved

[1] The custom of prohibiting marriage among members of the same tribe or clan.— *Editors.*

in his impurity. He was banished, so that none might come into contact with his accursed person. He was cut off from fire and water, not primarily because fire and water were necessary to his life, so that he was sentenced to death by being deprived of them, but rather for fear that his accursed touch should pollute the sacred elements and convey the pollution to others. That the criminal suffered in consequence was a satisfactory collateral effect, but the main thing was to secure the fire and water from pollution.

Thus far, then, public punishments, where they are any more than an explosion of indignant feeling, may be regarded as public action taken for the sake of public safety. The community is threatened with palpable treason, or with occult magic influence, or by the wrath of the gods. It protects itself by destroying the traitor, or sacrificing, or, at any rate, getting rid of, the witch. It is a kind of public hygiene rather than a dispensation of justice which is in question.

3. With the redress of wrongs, the maintenance of private rights, and the punishment of the bulk of ordinary offenses, it is different. For these purposes primitive society has no adequate organization. Administration of justice in this sense is in the main a private matter. It is for the sufferer to obtain redress or to avenge himself, and in the lowest stages of all the vengeance is, as we have seen, casual, arbitrary and unsystematized. But as the family and the clan acquire definite and coherent structure a systematic method of redress grows up. The leading characteristics of this method are two — (1) that redress is obtained by retaliation, and (2) that owing to the solidarity of the family the sufferer will find support in obtaining the redress that he seeks. The individual man, woman, or child no longer stands by himself or herself, but can count with considerable certainty on the protection of his relatives, who are bound to avenge a wrong done to him, or to stand by him in exacting vengeance by every tie of honor and religion. In other words, this is the stage of the blood feud. "He that sheddeth man's blood, by man shall his blood be shed," is the earliest law given in the Old

Testament, and on this point the Old Testament may be said to be a faithful reflection of the historical facts.

Though the blood feud is an expression of vengeance, this vengeance is by no means wholly without regulations and rules of its own. There is a rough justice recognizable in its working, though it is not the justice of an impartial third person surveying the facts as a whole. There is no question of a just judge rendering each man his due, but rather of a united kin sympathizing with the resentment of an injured relation when expressing itself in certain traditional forms. Justice as we understand it — the rendering to each man his due as judged by an impartial authority — is not distinctly conceived as a social duty in primitive ethics, and that is what, morally speaking, differentiates the primitive ethical consciousness from the ethical consciousness at a higher stage of development. Yet primitive ethics works upon rules in which a certain measure of justice is embodied. Thus in the first place custom prescribes certain rules of retaliation which are recognized as right and proper and have the approval of the neighbors and clansmen. The simplest and earliest of these rules is the famous *Lex Talionis*, "An eye for an eye, and a tooth for a tooth," familiar to us from the chapter of Exodus, but far earlier than Exodus in its first formulation. We find it, like many other primitive rules of law, in the recently discovered code of King Hammurabi,[1] which is earlier than the Book of the Covenant perhaps by 1300 years, and we find it at the present day among people sociologically at an earlier stage of development than the Babylonians of the third millennium before Christ. We find it applicable to bodily injuries, to breaches of the marriage law, and perhaps we may say in the rules of the twofold restitution for theft and in the symbolic form of mutilating the offending member even to the case of offenses against property. In some cases, the idea of exact retaliation is carried out with the utmost literalness — a grotesque literalness sometimes, as when a man who has killed another by falling on him from a tree is himself put to death by exactly the same method — a relation

[1] A Babylonian legal code of about 2250 B.C.— *Editors.*

of the deceased solemnly mounting the tree and much, one would say, at his own risk, descending upon the offender. More often, of course, vengeance is simpler. Stripes, mutilation, or death are inflicted without any attempt to imitate the original offense, though there may very well be a grading of the vengeance in proportion to the original wrong. The homicide is slain, the adulterer speared, beaten, or mutilated, the thief slain, enslaved, or forced to make restitution, the defaulting debtor enslaved or flogged.

4. But at a fairly early stage in the growth of social order a fresh principle is introduced tending to mitigate the blood feud and so maintain peace and harmony. For the special vice of the system of retaliation is that it provides no machinery for bringing the quarrel to an end. If one of the Bear totem is killed by a Hawk, the Hawk must be killed by one of the Bears, but it by no means follows that this will end the matter, for the Hawks may now stand by their murdered clansman and take the life of a second Bear in revenge, and so the game goes on, and we have a true course of vendetta. Accordingly, peaceable souls with a view to the welfare of both families, perhaps with the broader view of happiness and harmony within the community, intervene with a suggestion of peace. Let the injured Bears take compensation in another form, let them take cattle or other things to make good the loss of the pair of hands which served them. In a word, let the payment of damages be a salve to vindictive feelings. In that way, the incident may come to an end and peace will reign. When such a practice becomes a customary institution, we enter upon the stage of composition for offenses, a stage peculiarly characteristic of the settling down of barbarous tribes into a peaceable and relatively civilized state, and especially of the growth of the power of a chief whose influence is often exerted to enforce the expedient of composition upon a reluctant and revengeful family. As the institution takes shape a regular tariff is introduced, so much for an injury, so much for the loss of an eye, so much for a life. Often a distinction between classes of crime appears. For some it is the rule

that composition should be accepted. Others are recognized as too grave to be washed out except by blood. Thus among the German tribes murder and rape excited blood revenge, while other injuries were punishable by fine, and the fine is significantly called "faida," as being the feud commuted for money. The distinction lasted into the Middle Ages, even in a period when the fine or a part of it went to the king. Our *Leges Henrici* still distinguish emendable offenses, in which sacrilege and willful homicide without treachery are included, from unemendable offenses such as housebreaking, arson, open theft, aggravated homicide, treason against one's lord, and breach of the church's or the king's peace. These are crimes which in the Anglo-Saxon term had no bôt — no bôt or money payment atoned for them — they were bôt-less, boot-less. Even when the bôt was payable, it stood at first at the discretion of the injured family to accept or reject it, and we find the Germanic codes in the early Middle Ages setting themselves to insist on its acceptance as a means of keeping the peace. If the fine is not forthcoming, of course the feud holds.

But when injuries are being assessed, not only must there be a distinction between the injuries themselves, but also between the persons injured. There must be a distinction of rank, age, sex; a free-born man is worth more than a slave, a grown-up person than a child, generally speaking, a man than a woman, a chief or person of rank than a free man. And so we have the system of "wergilds"[1] familiar to us in the early stages of our own history, and again recognizable in the code of Hammurabi. In one form or another the system of composition prevails or has prevailed almost to this day over a great part of the barbaric world, among the North American Indians, in the Malay Archipelago, in New Guinea, among the Indian hill tribes, among the Calmucks and Kirghis of the steppes of Asia, among the rude tribes of the Caucasus, the Bedouins of the Arabian desert, the Somali of East Africa, the negroes of the West Coast, the Congo folk of the interior, the Kaffirs and Basutos of the South.

[1] Payments to compromise the shedding of blood.— *Editors.*

5. Primitive vengeance, then, may be exacted by retaliation or compounded by money payments. In either method a rough justice is embodied, but it is justice enforced by the strong hand. Even graver differences separating barbaric vengeance from civilized justice have now to be mentioned. These differences are inherent in the nature of the social organization upon which the blood feud rests. For the blood feud is retribution exercised by a family upon a family; it rests upon the support which each individual can count upon from his own immediate relations, possibly from his whole clan; it rests, in a word, upon the solidarity of the kindred. But the effect of this solidarity upon the working of retributive justice is by no means wholly favorable. In the first place it has the effect that the lives of members of other clans are held indifferent. A perfect illustration is afforded by the Ungani Nagas, a tribe of the northeast frontier of India, who live in villages composed of two or more "khels," as their clans are called, which, though living side by side and intermarrying, are for purposes of defense independent communities. A hostile tribe may descend upon the village and massacre all the members of one "khel" while the other "khels" sleep peacefully in their beds and do not raise hand or foot to protect their neighbors. This is cold-blooded, but it is not without a certain reason. The exterminated "khel" has incurred a feud from which the others are free. If they rise in its defense they not only incur the danger of the present fight, but they also involve themselves in the permanent feud. Next, in so far as justice rests on the blood feud, and the blood feud is of the nature of a private war between distinct families or clans, it follows that public justice will not deal with offenses committed within the family. These do not excite the blood feud. In some cases, no fixed punishment appears to be assigned for them, but this may happen not only because they do not belong to the province of public custom, but also, perhaps, because they are too rare for any definite custom to have arisen for dealing with them. Like parricide among the Romans, they represent the absolute ultimate of human wickedness. Further, generally speaking, there

is no need for any recognizable general rule, because offenses within the family are dealt with by the arbitrary justice of the paterfamilias or of the kin collectively, who, even if other means of enforcing authority failed, have always the ready remedy of outlawry, which puts the offender at the mercy of the first comer. Outlawry from the clan is the most effective of all weapons, because in primitive society the exclusion of a man from his kinsfolk means that he is delivered over to the first comer absolutely without protection. An illustration may be drawn from the early history of Mohammed's teaching, when the Korâis, who found that Mohammed's gospel was very inimical to their gains, wanted above all things to put him out of the way and made the most strenuous efforts to induce Mohammed's uncle, who was head of the clan, to disown him. Had the uncle consented, Mohammed would have been left without protection and might have been dispatched by any one without fear of consequences, but till the death of the uncle the clan stood by him; and the leading men of Mecca, powerful as they were, were not bold enough to take upon themselves a blood feud with Mohammed's family. The fear of the blood feud is the great restraint upon disorder in primitive society, and conversely he whose death will excite no blood feud has no legal protection.

So far the negative side of clan justice. The positive side has peculiarities not less startling to the modern mind, for since it is a member of one body who has done a wrong to a member of another body, the whole body to which the offending member belongs is held responsible by the whole body to which the injured member belongs; and it is not merely the original criminal who may be punished, but logically any member of his family may serve as a substitute. Responsibility is collective, and therefore also vicarious. Sometimes the whole family of the offender is destroyed with him. Sometimes any relation of the offender may suffer for him vicariously. John, who has done the deed, being out of reach, primitive vengeance is quite satisfied with the life of Thomas, his son, or brother, or cousin. Just as in the blindness of warfare the treacherous act of an enemy is generalized

and perhaps avenged in the next battle by a retaliation which does not stay to ask whether it is falling on the innocent or the guilty, so in the primitive blood feud. The wrong done is the act of the family or clan to which the aggressor belongs, and may be avenged on any member of that family or clan. Sometimes the retaliation is made more specific by a fresh application of the *Lex Talionis*, and to the rule "eye for eye," there is the pendant "son for son, daughter for daughter, slave for slave, ox for ox." You have slain my son? Then the true and just retribution is that I should slay yours. It is my daughter who is slain? Then it is with your daughter that you must pay for her. Sometimes vengeance is specially directed against the chief as representing the clan. Sometimes it may be visited on any male, or even on any adult member of the clan, children alone being excluded. Sometimes this last shred of humanity is torn away. The principle is pushed to its furthest and most revolting development among the head-hunting tribes common in southeast Asia, in which magical ideas combine with those of revenge, and the skull of the enemy has a potency of its own which makes its possession desirable in itself. The head of a child or woman of the hostile body is no less coveted an object than that of the fighting warrior, and is probably easier to obtain. When the principle of composition arises collective responsibility is reduced, by a less barbarous logic, to a common pecuniary liability. The clan are collectively responsible for the blood money due from a member, and by the same logic they are the collective recipients of blood money due to any member. And as with blood money so with other debts. There is a collective liability — a conception which in this softened form has its uses in the social order, and is in fact enforced and applied to the commune — though in right it belongs rather to the clan — by many Oriental governments.

6. Further, with the theory of collective responsibility goes almost necessarily the failure to distinguish between accident and design. In primitive society the real gravamen of a charge against an aggressor is that he has done an injury. How he did

the injury, whether of set purpose or by accident, is a matter of less moment. My son, or brother, or cousin, or clansman, is killed; that is enough for me; I must have some satisfaction out of the man who did it, and, what is more, my family must have some satisfaction out of his family. Futhermore, the whole distinction between design and accident is by no means so clear to primitive man as it is to us, for though it needs little reflection and a very moderate amount of self-knowledge to distinguish between what one has done one's self by accident or by design, and a very moderate degree of reasoning power to apply the distinction to other men — still, the nascent reflection of the savage is strangled at birth by the prevailing theory of witchcraft and possession. If a tree falls upon a man's head the savage holds that a spirit guided it. If a man, cutting a branch from a tree, dropped his ax on to another's head, it may not have been the man's own soul which guided the ax, but it was another soul which possessed him temporarily; he was possessed by some spirit, and as possessed he should be put out of the way. The treatment of the subject in the Hebrew codes illustrates the difficulty which is experienced even at a higher stage in strictly distinguishing between the two spheres of design and accident. Each code assigns a city of refuge for the excusable homicide, but none make it perfectly clear whether it is unintentional or unpremeditated man-slaying that is in view. The Book of the Covenant simply says, "If a man lie not in wait, but God deliver him (the victim) into his hand, then I will appoint thee a place whither he shall flee. And if a man come presumptuously upon his neighbor to slay him with guile, thou shalt take him from mine altar that he may die."[1] In Deuteronomy there is an attempt to define accident. The city of refuge is appointed for "whoso killeth his neighbor unawares and hated him not in times past." The first qualification would be true of unintentional, the second of unpremeditated homicide. Then follows a somewhat elaborate illustration of a case of pure accident.[2] "As when a man goeth into the forest with his neighbor to hew

[1] Exodus xxi. 13, 14. [2] Deut. xix. 4–6.

wood, and his hand fetcheth a stroke with the ax to cut down the tree, and the head slippeth from the helve, and lighteth upon his neighbor, that he die, he shall flee unto one of these cities and live:" and then it is once more stated that the slayer ought not to die, "inasmuch as he hated him not in time past," which would be true of any want of premeditation. Furthermore, even in this relatively enlightened code the unintentional slayer is not fully protected. It is clearly anticipated that the "avenger of blood" will pursue him "while his heart is hot, and overtake him because the way is long," and smite him mortally, and there is no hint that the avenger will be punished. Nor was the alternative, exile to the city of refuge, a merely nominal penalty. Finally, in the Priestly Code there is an elaborate attempt to distinguish different cases. The cities of refuge are appointed for every one that "killeth any person unwittingly," or, as the margin renders it, "through error." (An attempt is made to render the meaning clearer by specifying the implements used, of iron, wood or stone.) On the other hand, he who has killed another, "lying in wait" or "in enmity," is to be put to death by the avenger of blood "when he meeteth him." In intermediate cases the congregation shall judge. "But if he thrust him suddenly without enmity, or hurled upon him anything without lying in wait, or with any stone, whereby a man may die, seeing him not, and cast it upon him, so that he died, and he was not his enemy, neither sought his harm: then the congregation shall judge between the smiter and the avenger of blood according to these judgments."[1] Even here, then, the three cases of accident ("seeing him not"), assault without intent to kill ("thrust him suddenly"), and unpremeditated homicide ("without lying in wait") seem to be in a measure confused. And even in this code the avenger may slay the man-slayer anywhere outside the borders of the city of refuge until the death of the high priest.

Not infrequently in early law we find the distinction that unintentional homicide is atonable by paying the wergild, while deliberate murder gives rise to the blood feud. Thus in the code

[1] Numbers xxxv. 15, 20, 21, 22–24.

of Hammurabi the homicide might swear that the blow was unintentional and escape with a fine. So, again, though Germanic law begins by holding a man equally imputable for all that he has done, it is an ancient mitigation that for unintentional homicide the wer is due, and the blood feud should not be waged. The disentanglement of innocent from culpable homicide was a very gradual achievement in medieval Europe though aided by the Civil and Canon Law, and the forfeiture of goods — the direct survival of the wergild — remained in theory in English law down to 1828.

It is a natural, though, to our minds, a bizarre consequence that in early justice animals and even inanimate objects may be regarded as appropriate subjects of punishment. The slaying of offending animals is provided for in the Book of Exodus. Many cruel punishments were inflicted upon animals in the code of the Zendavesta,[1] and the same thing occurred in medieval Europe, where, perhaps under the influence of the Mosaic legislation, it even survived in isolated cases to the sixteenth or seventeenth century. The punishment of animals and inanimate objects was no mere wreaking of blind fury on innocent creatures. Probably to the primitive mind the ox that gored a man, the sword that slew, and the murderer that wielded it, were much more on one level than they can be to us. The animal or tool, if not conscious themselves, might be endued with a magic power or possessed with an evil spirit. It was well to get rid of them before they did more harm. If not destroyed they might be purified. Thus in the English law of Deodand, which was not abolished till the middle of the last century, there is a survival of the view that anything that has killed a man must undergo a kind of religious purification; a cart, for instance, which ran over a man, or a tree which fell on him, was confiscated and sold for charity — at bottom merely a somewhat humanized version of the ancient Athenian process whereby the ax that had slain a man was brought to trial, and, if found guilty, solemnly thrown over the boundary. It need hardly be added that where responsibility is extended to

[1] The sacred writings of the Zoroastrian religion. — *Editors.*

animals and inanimate objects, it is apt to be inadequately defined in the case of idiots, lunatics, and minors.

The principle of collective responsibility does not necessarily disappear with the rise of public justice under central authority. It lingers on, partly through sheer conservatism, but also in many cases for political reasons, to a late date. Thus it is particularly common to find that in political offenses the family of the offender suffers with him. The principle of collective responsibility has always been maintained in the Far East, in China, in the Korea, and, under the influence of Chinese civilization, in Japan, while it is noteworthy that for political offenses the parents and children might be punished under French law right down to the time of the Revolution. Parallels could be found in the laws of the ancient East, of ancient Persia, and of many states of medieval Europe. It is, in fact, only the decay of the joint family system and the rise of the free individual as the basis of the modern state which definitely does away with this principle, so fundamentally irreconcilable with the strictly ethical notion of justice. An interesting transitional phase is to be found in the Old Testament, where the visiting of the sins of the fathers upon the children is very definitely laid down as a piece of Divine justice in the earlier legislation (I mean in the Second Commandment), whereas in the time of Ezekiel it was strongly maintained to be an injustice that when the fathers had eaten sour grapes the children's teeth should be set on edge. It was, in fact, part of the ethical revolution introduced by the later prophets to establish morally for the Jewish code the principle of individual responsibility.[1]

7. With the evolution of social order, and in particular with the growth of central authority, the redress of wrongs begins to take the form of an independent and impartial administration of justice. Let us trace this growth in outline from its beginnings.

[1] Ezek. xviii. 2; Jer. xxxi. 29. The result is embodied in Deut. xxiv. 16. "The fathers shall not be put to death for the children, neither shall the children be put to death for the fathers; every man shall be put to death for his own sin."

The blood feud proper is revenge guided and limited by custom. It is not justice. It is waged by two conflicting parties, and there is no impartial third party to judge between them. But even in barbaric society the blood feud does not rage wholly without check. The public opinion of the group is always a force to be reckoned with. Every man's rights and obligations are fixed by custom. The very vengeance taken on those who infringe them is a custom, and directed in all its details by tradition. The headman or the elders of the clan or village are prepared to listen to complaints, to decide whether a wrong has been done, and, if so, what the reparation ought to be. The injured party may appeal to them if he pleases, and it may be that the aggressor will abide by their decision. If so, the affair is arranged perhaps by composition, perhaps by a stated penalty. Otherwise the parties will fight it out or it will come to a feud. In short, there is an effort on the part of the leading men to keep the peace and adjust the quarrel. Sometimes they will intervene of themselves if a feud becomes serious and threatens the general peace.

The "court," if so it may be called, appears at this stage rather as peacemaker than judge. The disputants may ignore it, preferring to trust to their own strength and that of their friends. Yet it is from the first the avenger's interest to have public opinion with him. He relies on the countenance and practical help of his kindred and fellow-tribesmen. At least he must avert their opposition. If the facts are peculiarly flagrant the neighbors will be with him and he will have the less difficulty in executing vengeance. Perhaps even the kindred of the wrongdoer will refuse to stand by him. Thus it becomes the interest of the avenger to make his case plain to the neighbors, and they in turn wish to hear what the accused party has to say. A palaver is held. The avenger comes with his kinsmen and friends. They state their case and announce their intention of seeking revenge. The accused is also present, backed by his kin, and repels the demands made on him. It may be that the matter is settled between the groups concerned. It may be that the neighbors

or the chief give sentence, but even so it does not follow that they enforce it. They may give the appellant their moral support, and leave it to him to obtain satisfaction as best he can. But of course their decision helps him to get the opinion of the tribe on his side, and their moral force will be translatable into physical force. It will mean so many more backers for him, and so many less for his opponents. This support may be disdained by the strong, but it will be valued by the weak, and will be upheld by those who desire internal peace. Thus even under the clan and tribal organization of society some form of public intervention may arise alongside of private redress. Feuds are averted by the adjustment of disputes, or, if a wrong has been done, by getting the complainant to accept composition, and the aggressor to undergo some penalty which will be a mitigated form of revenge, or by bringing the two parties to fight it out under the regular forms of a duel.

Such methods of mitigating the blood feud are stimulated by the growth of the kingly power — that is to say, of an organized force outside the contending families or clans, which can summon them before its bar, decide their cause, and require them to keep the peace. The king, whose duty and interest it is to maintain public order, treats crime — or certain kinds of crime — no longer as an offense against the individual whom it primarily affects, but as a menace to public tranquillity, a breach of his "peace." This, if he is strong enough, he will punish directly; if not sufficiently strong, he will deprive the offender of his protection, put him outside the king's peace, and compel him by fine to buy back what he has lost. Thus we find crime punishable by wite as well as by bôt — a fine to the king side by side with compensation to the kinsfolk.

But from moral assistance the transition to physical assistance is not very difficult in idea, however slow and cumbrous it may have been in practice. There is more than one method of transition. Sometimes we find the public authority, the elders or the whole body of the neighbors, or later the regular magistrate, exerting themselves to arrest the offender and handing him over

to the avenger of blood for execution, or judging between the avenger of blood and the man-slayer, whose act was "unwitting." Thus in Deuteronomy, if the deliberate murderer flies to a city of refuge, "then the elders of his city shall send and fetch him thence, and deliver him into the hand of the avenger of blood that he may die."[1] But without taking an active part in the pursuit and capture of the offender the court had an effective weapon in the power of outlawry. Since in accordance with early ideas all personal rights depend upon membership of a society united for mutual protection, it follows that the man excluded from the group is in the position of a stranger and an enemy; he is a wolf's head, a wild animal whom the first comer may put to death at sight, with whom nobody may associate, to whom nobody may give food or lodging. Outlawry can therefore be applied either as a punishment or as a process — as a method of bringing the accused into court. What more reasonable than that if he will not submit to law he shall lose the protection of the law? With this weapon, potent in proportion as the social order is developed, the court of early law consolidates its authority, and from being a casual institution of voluntary resort for those who wish the sympathy of their neighbors in avenging their wrongs, becomes an established authority with compulsory powers before which either party can be summoned to appear at the instance of his opponent.

8. But we are still a long way from a modern Court of Justice. The primary function of a court thus established is not so much to discover the merits of the case and make an equitable award, as to keep the peace and prevent the extension of wild and irregular blood feuds. What the court has to deal with is the fact that a feud exists. A comes before it with a complaint against B of having killed his kinsman, or stolen his cattle, or carried off his daughter. Here is a feud which, in the absence of a court, A will prosecute with his own right arm and that of his kinsmen if he can get them to help him. B, again, will resist with the help of *his* kinsmen, and so there will be a vendetta. The court,

[1] Deut. xix. 12.

whose primary object is to secure a settlement, does not go into nice questions as to the precise merits and demerits of A and B, but it can prescribe certain tests whereby the appellant or the defendant may establish his case. It sets the litigant "a task that he must attempt. If he performs it, he has won his cause." The performance of this task is not, to our minds, proof of the justice of his cause. It is rather the compliance with a legal and orderly method of establishing a case, but at the stage we are considering it was probably regarded as satisfying justice, at least, as far as justice claimed to be satisfied.

What task, then, would the court award? It might be that the litigant should maintain his cause with his body. The parties would then have to fight it out in person or by their champions. Here we have the method of the blood feud, but regularized, limited, and transformed into the judicial duel. Again, the court might put one or both parties to the oath. But this is not the oath of the modern law court — that is to say, it is not a solemn asseveration of the truth of certain evidence of fact, but an assertion of the general justice of the claim alleged, or of its injustice, as the case may be. And as the feud will not be waged by the individual claimant alone, but with the aid of all his kindred, so the court will expect the kindred to come and take the oath along with him. Hence the institution of oath-helpers, the compurgators, who are in point of fact the fellow-clansmen all bound to the duty at this stage of swearing their friend out of the difficulty, just as before they were bound to help him out of it by arms. The compurgators are simply clansmen fighting with spiritual weapons instead of carnal ones. Success in the cause will depend not on the opinion formed by the court as to the veracity of one side or the perjury of the other, but on the ability of the parties to get the full number of compurgators required, on formal correctness in taking the oath, and if both parties fulfill all conditions and no further means are available for deciding between them, on certain rules as to the burden of proof.

The provision of such further means of deciding between the parties is logically the next step. So far, the judicial process has

appeared merely as a regularization of the blood feud, but both the oath and the judicial combat point the way to a higher ideal. The court itself is not in a position to try the merits of the case unless it be some very simple matter of the criminal caught red-handed, but it may refer the decision to the unseen powers, to the gods, or to the magical qualities inherent in certain things. Thus the judicial duel, instead of being a mere carnal fight regularized and limited by certain rules, may be conceived rather as an appeal to the judgment of God, and the victory as His sentence which the court hesitates to pronounce on the basis of its merely human wisdom. Similarly the oath — though less than evidence as we conceive evidence — is also more, for it is an appeal to powers in which primitive man implicitly believes, to take vengeance on him who swears, if his cause be not just. Hence the form of the oath is everything, for the unknown powers are great sticklers for form. The oath-taker calls down their punishment on himself and his family by a set formula which they will rigidly obey. If in the formula he can leave himself any loophole of escape the oath is void; it is no true summoning of the vengeful powers, and the court will disregard it, but if it is complete and sound in point of form, then there is no escape. One of two things must happen: either the oath was true or the curse will fall, and thus perjury brings its own punishment.

Hence it is that for any given charge the law may call upon a man to purge himself by oath, or perhaps to purge himself along with a specified number of oath-helpers who will suffer with him if the oath is false, and the oath-helpers required may be increased according to the seriousness of the crime. If the oath fails, the prescribed punishment follows. If it is duly taken, then either the accused was innocent, or he has inflicted the punishment entailed by the broken oath on himself and his oath-helpers.

But the consequences of a false oath were not immediately apparent. If the court wished to have the judgment of the Unseen Powers before it some more summary process was necessary. This was found in the ordeal, a test to which both parties could be submitted if necessary, and of which the results were

immediate and manifest. Probably no institution is more universal at a certain stage of civilization than that of testing the truth or falsity of a case by a certain magico-religious process — the eating of a piece of bread, the handling of burning iron, or boiling oil, jumping into water, walking through fire, exposure to wild beasts, and so forth. The details vary, though even in detail resemblances crop up at the most remote periods and in the most remote places, but the general principle is still more clearly constant through the ages and the climes. Truth cannot at this stage be tested by human evidence. At most, the criminal caught red-handed may be summarily dispatched upon the evidence of eye-witnesses given there and then, but the complicated civil or criminal processes of the civilized world imply an intellectual as well as a moral development which makes them impossible at an early stage. It is the gods who judge; the man who can handle hot iron is proved by heaven to be innocent; the woman whom the holy river rejects is a witch; he whom the bread chokes is a perjurer. Nor are these tests wholly devoid of rational basis; it is not so difficult to understand that the guilty man would be more liable to choke than the innocent, not because bread is holy, but because his nerves are shaken. It is quite intelligible that in a credulous age the false oath would bring its curse in the form of a will paralyzed by terror, just as we know that amongst many savages witchcraft really kills through the sufferer's intense fear of it. Lastly, if the criminal may be ready to take his chances of the curse in preference to the certainties of the scaffold, he may find it difficult to get compurgators to stand by him, and in the face of their plain knowledge involve themselves in the same risk.

9. Thus, particularly in the institution of compurgation, we find the beginnings of a new conception, the conception that it is the duty of the court to try the case, to obtain proof of facts, to give its own verdict based on its own judgment, and execute its own sentence by its own officers. The steps by which this change is achieved belong rather to the history of jurisprudence than to that of comparative ethics. Only certain broad fea-

tures of the new phase concern us. Its primary condition is perhaps not so much a new growth of moral ideas as the formation of an effective organ of government. The elders or the petty chief of the village community hesitate to carry out a death sentence or inflict corporal punishment for fear of involving themselves in the blood feud. There must be an executive power with sufficient force behind it to raise its officers above the fear of revenge before a public system of justice, in the full sense, can arise. Hence the decay of blood revenge and the rise of public justice are frequently associated with the growth of kingly power. For example, in Europe in the early Middle Ages we have seen that certain offenses were treated as breaches of the king's peace. This peace was a protection afforded in the first instance to certain places and times, but it was gradually extended, largely it would seem through the king's protection of the roads — "the king's highway" — to all places and all times. Thus the act which had been a breach of the king's peace, punished by the withdrawal of his protection only when committed at certain times and places, now became an offense against him at all times and places. Its punishment was still outlawry. But as outlawry deprived a man of all rights, it enabled the king to inflict what penalty he chose. The criminal, in fact, was at his mercy; any penalty short of death with forfeiture of all goods would be an indulgence, and hence the royal courts could fix a scale of punishments at their pleasure.

With the growth of public justice the function of the courts is changed: they have no longer to supervise the feuds of hostile families, but to maintain public order, to detect and punish crime, and to uphold innocent people in their rights. This involves numerous changes. In the first place, self-help, the obtaining of satisfaction by the strong hand, is no longer necessary. The injured man can get a remedy from the court, and vengeance is forbidden. The victory is not immediate, and often the state has to come to some compromise with the old system. For example, vengeance may be allowed *in flagrante delicto*,[1] or

[1] At the moment of the crime. — *Editors*

within a certain period after the offense. Where state justice is very weak, an asylum may be granted within which revenge must not be executed; in other cases where the process is further advanced and justice is getting the upper hand, revenge is allowed *only* with the consent of a court. Or lastly, excluded from all ordinary cases, revenge is tolerated as a concession to human weakness in cases where strong passions are excited — for example, in breaches of the marriage law to this day in many civilized countries. The transition was the harder because it involved a fundamental ethical change. From its beginning, as we have seen, social order rested on the readiness of every man to stand by his kinsmen in their quarrels. Hence the duty of avenging the injured kinsman, and therefore of loving one's neighbor in this sense and hating one's enemy, was the most sacred of primitive principles, bound up with everything that made a common life possible. Public justice bade men lay aside this principle, and its triumph constitutes one of the greatest of social revolutions.

But if the kindred be no longer allowed to avenge themselves, the corresponding right of the offender to make peace with the kin is also withdrawn. A crime is now a public affair, and in varying degrees according to time and country the public authority takes upon itself the function of maintaining order and of discovering as well as punishing offenders. The trial ceases to be a milder form of the blood feud. The complainant no longer exposes himself to equal punishment by way of retaliation in case he loses his suit. What was previously accusation now becomes denunciation. Again, though the injured party may set the whole process in motion, the result will differ vitally according to the nature of the act of which he complains. Justice, having public interests in view, will count not only the magnitude of the injury suffered, but the degree of culpability in the man who inflicted it. Vengeance, the object of the older process, breaks up into the two distinct ideas of punishment inflicted by the judge, and restitution assigned to the complainant. Civil and criminal justice are distinct.

10. Once become serious in its determination to investigate

the case before giving sentence, public justice could not long be satisfied with the older supernatural machinery. In medieval Europe it was early a matter of remark that the battle was not always to the just. "We are," says the Lombard king, Luitprand, "uncertain about the judgment of God, and have heard that many through the battle lose their cause without justice; but the law itself, on account of the custom of our race of Lombards, we cannot forbid."

It was therefore a great step in advance when ordeals, which had been adopted by the church after the barbarian invasions, were condemned by the Lateran Council of 1215. As a consequence they disappear in England after the reign of John, while the oath of compurgators is gradually converted into evidence to character. The ordeal by battle remained, but an alternative was offered in the form of a judicial inquiry with witnesses and evidence. The accused might, in English phrase, "put himself upon his country," *i.e.*, let his case go before a jury, men of his neighborhood knowing the facts and prepared to testify to them, or in French phrase the accused could be offered the "enqueste du pais."[1] And this alternative, if at first optional, soon manifested its vast superiority, and the settlement of all disputes and all accusations by an impartial tribunal, which has heard what both sides have to say, becomes an integral part of the civilized order. But even-handed justice is not reached at one stride. The public authorities having once taken up the function of repressing crime are more bent on efficiency in the maintenance of order than on nice considerations of justice to individuals. Their tendency is to treat the accused man as guilty, and means of proving his innocence are somewhat grudgingly meted out to him as privileges rather than as rights, while deficiencies of evidence are boldly supplemented by the use of torture. In English law, indeed, torture (except in the case of the *peine forte et dure*)[2] never seems to have been fully recognized; if used by the absolute monarchy it was as a political instrument rather than

[1] State inquiry. — *Editors*.

[2] Torture applied to a prisoner to compel him to plead. — *Editors*.

as part of the ordinary machinery of law. On the Continent, on the other hand, owing partly perhaps to a stricter theory of the amount of evidence necessary for proof, partly to the fact that the authorities were more determined to suppress crime than to protect individuals from the possibility of undeserved suffering, torture became a recognized method of supplementing defective evidence. The judicial conscience was easier if it extorted a confession from a man before condemning him than if it acted solely on evidence undistorted by physical suffering. Even where torture was not allowed the accused was not always put on a level with the prosecution as to the right of giving evidence, calling witnesses and employing counsel. It is not until all these conditions are fulfilled that a court of justice can be said to come up to the ideal of a place in which the full merits of the case are investigated before a verdict is given. Even *now* it must be remarked that an English trial preserves much of the form of the old judicial combat. Its method of obtaining a verdict is still that of pitting attack and defense against one another. It may be that this is the best method of obtaining truth where human interests and passions are at stake, and that the advocate must always retain a place beside the judge: but what seems clear is that the power of the purse in retaining the best legal skill is a make-weight, especially in civil cases, of no slight practical importance; and it is possible that our descendants will look back upon a system which allowed wealth to count for so much before what should be an absolutely impartial tribunal, as not differing so much as we should like to think from the old ordeal by battle. The fight with the purse is not the ideal substitute for the fight with the person.

11. We have seen that public justice often led to severity in the process of obtaining truth; still more was this the case in the punishment of crime. Accompanying the growth of order in a barbarian society there is, as has been remarked above, a tendency to substitute a system of composition for blood vengeance by a money payment. This system made for social peace, but, particularly with the increase of wealth and difference of rank, it

ient itself to frightful abuses. Crimes, punished perhaps too fiercely in early society, became for the well-to-do too lightly and easily atonable, and it is not surprising that at the next stage of social development, in which the central power has consolidated itself and the executive has become strong enough to dismiss any fear of the blood feud, a period of severer punishment should set in. Crime now becomes a revolt against authority, a challenge to the powers that be, civil and perhaps ecclesiastical as well, to put forth all their strength to subdue it. Moreover, the central authority at its best acts in the interests of public order, and on the whole represents the principle of impartial judgment as between disputants, and of progress towards internal peace and the reign of law. On the other hand, order is still difficult to maintain and powerful families are recalcitrant. From such causes as these acting in combination the criminal law now reaches the acme of its rigor. Death penalties or savage mutilations are inflicted for offenses of the second and third order, torture is freely used to extort confession, and the brutality of the mob is called in to supplement that of the executioner.

As to the severity, or rather barbarity, of the criminal law in Europe down to the nineteenth century little need be said, as the broad facts are well known. In England death was theoretically the penalty for all felonies except petty larceny and mayhem, from the Middle Ages down to 1826. This rule was subject to the exceptions based on "benefit of clergy," which originally meant the right of a clerk to be tried in the ecclesiastical courts; then, being extended to all who could read, became something of the nature of a class privilege, and finally in 1705, the necessity for reading being abolished, was converted into a means of grace. The punishment for a "clergyable" offense was to be branded in the hand and imprisoned for not more than one year, except in the case of larceny, which by the law of 1717 was punishable by transportation for seven years. From the fifteenth century onwards a succession of statutes excluded more and more offenses from benefit of clergy, and thus at the end of the seventeenth century such offenses as arson, burglary, horse stealing, stealing

from the person above the value of a shilling, rape and abduction with intent to marry, were all capital "whether the offender could read or not." In the eighteenth century the list was lengthened, but transportation was often substituted for the death penalty. Women were still burnt alive for the murder of a husband or master, or for coining. Both men and women were whipped, the men publicly through the streets, the women as a rule privately, for petty thefts. The pillory was still in use for perjury and other offenses. Meanwhile the state of the prisons, where innocent and guilty, debtors (often with their families) and convicted criminals were all huddled together without discrimination, was, when Howard began his work, a scandal of the first magnitude. Gaol fever raged, prisons were still private property, and the prisoner, innocent or guilty, had to fee his gaoler and pay for every comfort and even for necessaries. In the Bishop of Ely's prison the gaoler prevented escapes by chaining his prisoners on their backs on the floor, and fastening a spiked iron collar about their necks. "Even when reconstructed it had no free ward, no infirmary and no straw; and debtors and felons were confined together."

12. But even before Howard's time a new order of ideas was slowly emerging. As society becomes more confident in its power to maintain order, the cruelty and callousness that are born of fear are seen in a new light. More humane influences make themselves felt, and from that moment excessive severity begins to militate against the proper execution of the law, especially under a jury system like ours. With the advance of civil and religious liberty, political or ecclesiastical offenses grow rare, and a breach of the law becomes more and more synonymous with a grave moral offense against society. The whole problem of criminal justice is thus transferred to the ethical plane, but the change raises problems which a century has been too short a time to solve. The general right to punish may be derived from the right of society to protect itself. This principle taken by itself[1]

[1] So taken it is a one-sided account. Punishment, like other actions, can only be justified as doing the maximum of good and the minimum of evil

might be held to justify the barbarities of the old law, had not experience shown that extreme severity was not in reality an effective instrument of discipline, while it undoubtedly tended to harden manners and accustom people to witness suffering with indifference. Its dealings with the criminal mark, one may say, the zero point in the scale of treatment which society conceives to be the due of its various members. If we raise this point we raise the standard all along the scale. The pauper may justly expect something better than the criminal, the self-supporting poor man or woman than the pauper. Thus if it is the aim of good civilization to raise the general standard of life, this is a tendency which a savage criminal law will hinder and a humane one assist. Moreover, the old rigor, so far as it rested on reason at all, was based on a very crude psychology. People are not deterred from murder by the sight of the murderer dangling from a gibbet. On the contrary, what there is in them of lust for blood is tickled and excited, their sensuality or ferocity is aroused, and the counteracting impulses, the aversion to bloodshed, the compunction for suffering, are arrested. Fear, on which the principle of severity wholly relies, is a master motive only with the weak, and only while it is very present. As soon as there is a chance of escaping detection it evaporates, and, it would seem, the more completely in proportion as the very magnitude of the penalty makes it difficult for a man really to imagine *himself* as the central figure in so terrible a drama. Finally, the infliction of heavy penalties for secondary crimes may induce a reckless despair, and the saying about the sheep and the lamb was but too apt a comment on the working of the criminal law at the time. Thus the first step of reform was to abolish the ferocious penalties of the old law. In this direction a long list of well-known and honored names, Beccaria, Howard, Bentham, Romilly, Fowell Buxton, Elizabeth Fry, indicate

admitted by the circumstances to all concerned. If any evil (suffering or loss of character) is inflicted on the criminal which is not absolutely necessitated by social security, or the ultimate welfare of the criminal himself, it is evil inflicted for its own sake, which is the essence of immorality.

roughly the intellectual and moral influences at work. The Society of Friends, French Rationalists, English Utilitarians and the Evangelicals played their part in this, as in so many of the changes that have made the modern world. The movement was under way by the second third of the eighteenth century. Beccaria's book was published in 1764 and had an immediate success, bearing early fruit in the abolition of torture on the Continent. Branding was abolished in England in 1779. Capital punishment had been abolished for a time in Russia in 1753, and the purchase of prisoners as galley slaves was forbidden by Maria Theresa in 1762. In England the *peine forte et dure* was abolished in 1772, and in 1770 a House of Commons committee even reported that there were some offenses for which the death penalty might with advantage be exchanged for some other punishment. These few indications show that the tide was beginning to turn. In France the movement was hastened by the Revolution. The Declaration of Rights in 1789 laid down the controlling principle of the modern theory that "the right to punish is limited by the law of necessity," and this was supplemented in 1791 by the declaration of the Assembly that "penalties should be proportioned to the crimes for which they are inflicted, and that they are intended not merely to punish, but to reform the culprit." In accordance with this principle the Assembly made imprisonment the chief method of punishment, and founded the penitentiary system of France. In England the great reaction produced by the Revolution retarded the reform of the criminal law, but throughout the time of the Revolutionary Wars, men like Romilly fought an uphill fight. He succeeded in suppressing the death penalty for pocket-picking in 1808, but his subsequent efforts to abolish capital punishment for stealing goods of the value of five shillings from shops were frustrated by the House of Lords. Little progress, in fact, was made till 1832, when horse and sheep stealing ceased to be capital, and from this time onwards the list of capital offenses was steadily reduced, till in 1861 murder was for all practical purposes the only one that remained.

Meanwhile, as substitutes for the old savagery, there grew up first the transportation and then the penitentiary system. Regarded as a means of giving the offender a fresh start in life in new surroundings remote from his old bad associates and the memory of his crimes, transportation has much to recommend it, but it was clearly incompatible with colonial development. It was necessary to fall back on the prison system, and the efforts of reformers have been devoted to the task of making confinement — a thing soul-destructive in itself — as nearly compatible as may be with the regeneration of the prisoner. These efforts have hardly passed the experimental stage, yet certain results have emerged. The necessity for a classification which prevents the first offender from being contaminated by the hardened jail-bird, the benefits of action and practical employment, the superiority of hope to fear as a stimulus to good conduct and the consequent advantages to be found in allowing the convict means of improving his position and even shortening his sentence by good behavior, are matters of general agreement. But it is clearly necessary to go further than this. The plan of imprisoning a man for a longer or shorter term, and then without asking what effect his experience is likely to have had on him, turning him loose again upon society, a broken human being less capable than ever of earning an honest living, cannot stand. The old way of hanging at least rid society of the criminal. It stood condemned for its utter barbarity, which was indirectly as harmful to society as it was cruel to the sufferer. The modern method is still a terrible penalty, at least to the better sort of criminals, and far from relieving society of their presence, tends to harden and degrade them further. Hence judicious thinkers like Frederick Hill, in his report of 1839, soon recognized that a more thorough system was required. The offender must be reformed, and at need he must even be detained until he was given good promise of reformation, and society must help him back into honest ways. The most thoroughgoing attempt in this direction is that of the Elmira system, followed now in several American states, in which, the sentence being wholly or within

limits indeterminate, the fate of the convict depends on his own exertions. He can raise himself from a lower to a higher grade by continued good behavior, and finally can obtain liberation on parole.

13. Whatever the outcome of these experiments, the modern state stands committed to the humane method of criminal treatment, and could not revert to the old plan save at the risk of a general rebarbarization. That being so, it is necessary to push the new method through and to treat the criminal throughout as a "case" to be understood and cured. We touch here the scientific conception underlying the modern theory of punishment. Crime, like everything else that men do or suffer, is the outcome of definite conditions. These conditions may be psychological or physical, personal or social. They arise in the character of the agent as it has grown up in him from birth in interaction with the circumstances of his life. We may recognize them in social surroundings, in overcrowding or underfeeding, in the sense of despair produced by the denial of justice, or in the overweening insolence of social superiority. But whatever they may be, if we wish to prevent crime, we must discover the conditions operating to produce crime and act upon them. This does not destroy, but defines personal responsibility. The last link in the chain of causation which produces any act is always the disposition of the agent at the time of action, and unless dominated by ungovernable impulse,[1] this disposition is always modifiable by the introduction of a fresh motive as a weight in the scale. But though not destroyed, responsibility is transformed by science, and with it the whole conception of punishment.[2] When a wicked act was

[1] This makes no exception to the general statement that character is the cause of action, since that paralysis of the will which leaves a man the sport of impulse is itself a matter of character. As to control of man's conduct by heredity much nonsense is talked. Heredity is not a force controlling a man from without, but a short expression for the supposed antecedent causes of the qualities which make him what he is, and by what he is, he is to be judged, so far as he is judged at all.

[2] Responsibility, properly understood, is definable as the capacity to be determined by an adequate motive. A man is responsible who knows what

held to be something arising in a spontaneous arbitrary manner from the unmotived evil choice of a man, the vindictive retribution which is founded on instinct and fostered by the needs of early society seemed amply justified. When good and evil alike are seen to grow out of assignable antecedents by processes which calmly judging men can pretty closely foretell, to rest on laws of growth and disease which apply to character as other laws apply to the physical organism, to express the lack of imagination or low power of reasoning which makes men hard, cruel, and unjust, or to flow from the over-excitement or insufficient satisfaction of physical impulses that makes them a prey to lust or alcohol, then every thinking man is made to feel in a new sense that but for the grace of conditions which he has only very partially and imperfectly controlled, there where the criminal passes to disgrace and misery goes he himself, the juryman, the judge, the newspaper reader who explodes in satisfaction over the swinging sentence. No one can fully face the problem of responsibility and become, however dimly, aware of the multitudinous roots from which character and conduct spring, without feeling the utter inadequacy of the retributive theory of punishment. Vindictiveness has its natural sphere in the stage at which crime is only known as an injury to be revenged. As soon as it becomes a wrong act to be punished, the nature of wrong and the meaning of punishment have to be reconsidered. If the first principle of rational ethics is that action can only be justified by doing good to those whom it affects, this principle receives a striking confirmation from the one quarter in which its application might seem doubtful. For a natural impulse makes us desire to harm the wicked, but the history of criminal law and the philosophical analysis of responsibility combine to prove to us that this is the impulse of the Old Adam and not warranted by

is expected of him, understands the consequences of his action, and is determined therein by that knowledge. Reward and punishment, praise and blame, are therefore justly awarded in so far as they affect action. Beyond this, retribution is inapplicable, and praise and blame pass into admiration and pity.

reason or justice. Justice, in punishment as in other things, seeks the good of all whom it affects, of the criminal as of the injured party. Yet all true punishment inflicts pain, for precisely the truest punishment consists in the full realization of the character of what one has done. This realization, with all the mental misery that it involves, we may justly wish to be the lot of every criminal, whether convicted or unconvicted, whether despised or, like the greatest offenders, honored by the world. So far pain is rightly attached to wrongdoing as, ethically speaking, its inevitable consequence. But any other sort of pain, any physical suffering that has no such healing moral effect, may gratify an animal thirst for vengeance but has no solace for our moral thirst for the triumph, even in the mind of the wrongdoer of the righteousness which he has set at naught.

The modern state upholds its members in the enjoyment of their rights and gives them redress for injuries to themselves in the civil courts. It also intervenes on its own motion to maintain public order by the punishment of lawbreakers. Religious and political offenses falling into the background, legal offenses tend to be restricted to criminal acts, and punishment to be proportioned to the imputed degree of moral guilt.[1] But this ethical view of punishment, when pushed home, compels the admission that the individual theory of responsibility is no more final than the old collective theory, and punishment is compelled to justify itself by its actual effect on society in maintaining order without legalizing brutality, on the criminal in deterring him or in aiding his reform, in both relations as doing good, not as doing harm. The criminal, too, has his rights — the right

[1] The converse proposition that wicked acts are all treated as legal offenses does not follow, nor is it true of the modern state. The questions as to the sphere of the state which arise here cannot be dealt with on this occasion.

Offenses against the public order do not constitute an exception to the statement in the text. In themselves they are slight offenses, and the penalty is always light, but the deliberate defiance of the public order is of course an immoral act unless justified by some bad end which that order may be made to serve.

to be punished, but so punished that he may be helped in the path of reform.

Briefly to resume the main phases in the evolution of public justice, we find that at the outset the community interferes mainly on what we may call supernatural grounds only with actions which are regarded as endangering its own existence. Otherwise justice, as we know it, in the sense of an impartial upholding of rights and an impartial punishment of wrongdoing, is unknown. In place of that we have at the outset purely private and personal retaliation. This develops into the systematized blood feuds of consolidated families and clans. At this stage responsibility is collective, redress is collective, intention is ignored, and there is no question of assessing punishment according to the merit of the individual. When retaliation is mitigated by the introduction of money payments no change in ethical principle occurs. It is only as social order evolves an independent organ for the adjustment of disputes and the prevention of crime, that the ethical idea becomes separated out from the conflicting passions which are its earlier husk, and step by step the individual is separated from his family, his intentions are taken into account, his formal rectitude or want of rectitude is thrown into the background by the essential justice of the case, appeals to magical processes are abandoned, and the law sets before itself the aim of discovering the facts and maintaining right or punishing wrong accordingly.

The rise of public justice proper necessitates the gradual abandonment of the whole conception of the trial as a struggle between two parties, and substitutes the idea of ascertaining the actual truth in order that justice may be done. That is at first carried out by supernatural means, viz. by the ordeal and the oath. These in turn give way to a true judicial inquiry by evidence and rational proof. The transition occurred in England mainly during the thirteenth century, the turning point being marked by the prohibition of the ordeal by Innocent III in 1215. The early stages of public justice administered by the recently developed central power led to excessive barbarity

in the discovery and punishment of crime. It took some more centuries to prove to the world that efficacy in these relations could be reconciled with humanity and a rational consideration of the best means of getting at truth. By so long and round-about a process is a result, so simple and obvious to our minds, attained.

XIII

THE PROSPECTS OF POPULAR GOVERNMENT

HENRY SUMNER MAINE

[Sir Henry James Sumner Maine (1822–1888) was a prominent British statesman and student of politics. He held important lectureships in civil law and jurisprudence at Cambridge and Oxford and produced a number of works, notably his *Ancient Law*, published in 1861, which are regarded as among the first to utilize the new "historical method" in the study of political and legal institutions.

The Prospects of Popular Government, from the author's *Popular Government*, 1885, is by no means a wholly conclusive analysis of modern democracy. It can scarcely be questioned that the writer is moved by something dangerously like prejudice against pure democracy. But the essay is so accurate in its presentation of the points of debate, so concrete in illustration, and most importantly, so wholly uninfluenced by the glamour of patriotic enthusiasm over the generally assumed success of democratic government, that it possesses a stimulus to interest frequently lacking in more scientific or more impartial writings. Touching closely the question of the success of the democratic idea in England and America, Maine's work met with adverse criticism from some of the most prominent thinkers of the day. The ground upon which it was assailed was that although it exhibits much political and legal erudition, its attitude is deduced from the history of democratic theory, corrected by casual observation of the results, rather than from the history of democracy itself. This weakness is discussed in a review by John Morley, reprinted in his *Studies in Literature*. A reply to Maine's argument directed primarily at his comments upon democratic rule in the United States is found in Lawrence Godkin's *An American View of Popular Government*, in the *Nineteenth Century* for February, 1886. Godkin's criticism was answered by Maine in the March number.]

THE blindness of the privileged classes in France to the Revolution which was about to overwhelm them furnishes some of the best-worn commonplaces of modern history. There was, no doubt, much in it to surprise us. What king, noble, and priest

could not see, had been easily visible to the foreign observer. "In short," runs the famous passage in Chesterfield's letter of December 25, 1753, "all the symptoms which I ever met with in history previous to great changes and revolutions in government now exist and daily increase in France." A large number of writers of our day, manifesting the wisdom which comes after the event, have pointed out that the signs of a terrible time ought not to have been mistaken. The court, the aristocracy, and the clergy should have understood that, in face of the irreligion which was daily becoming more fashionable, the belief in privilege conferred by birth could not be long maintained. They should have noted the portents of imminent political disturbance in the intense jealousy of classes. They should have been prepared for a tremendous social upheaval by the squalor and misery of the peasants. They should have observed the immediate causes of revolution in the disorder of the finances and in the gross inequality of taxation. They should have been wise enough to know that the entire structure, of which the keystone was a stately and scandalous court, was undermined on all sides. "Beautiful Armida Palace, where the inmates live enchanted lives; lapped in soft music of adulation; waited on by the splendors of the world; which nevertheless hangs wondrously as by a single hair."[1]

But although Chesterfield appeals to history, the careful modern student of history will perhaps think the blindness of the French nobility and clergy eminently pardonable. The monarchy, under whose broad shelter all privilege grew and seemed to thrive, appeared to have its roots deeper in the past than any existing European institution. The countries which now made up France had enjoyed no experience of popular government since the rude Gaulish freedom. From this, they had passed into the condition of a strictly administered, strongly governed, highly taxed, Roman province. The investigations of the young and learned school of historians rising in France leave it questionable whether the Germans, who are sometimes supposed to have

[1] Carlyle, *French Revolution*, vol. vi, p. 4.

redeemed their own barbarism by reviving liberty, brought anything like freedom to Gaul. There was little more than a succession of German to Roman privileged classes. German captains shared the great estates, and assumed the rank of the half-official, half-hereditary nobility, who abounded in the province. A German king, who was in reality only a Roman general bearing a barbarous title, reigned over much of Gaul and much of central Europe. When his race was supplanted by another in its kingship, the new power got itself decorated with the old Roman Imperial style; and when at length a third dynasty arose, the monarchy associated with it gradually developed more vigor and vitality than any other political institution in Europe. From the accession of Hugh Capet to the French Revolution, there had been as nearly as possible 800 years. During all this time, the French royal house had steadily gained in power. It had wearied out and beaten back the victorious armies of England. It had emerged stronger than ever from the wars of religion which humbled English kingship in the dust, dealing it a blow from which it never thoroughly recovered. It had grown in strength, authority, and splendor, till it dazzled all eyes. It had become the model for all princes. Nor had its government and its relation to its subjects struck all men as they seem to have struck Chesterfield. Eleven years before Chesterfield wrote, David Hume, a careful observer of France, had thus written in 1742: "Though all kinds of government be improved in modern times, yet monarchical government seems to have made the greatest advance to perfection. It may now be affirmed of civilized monarchies, what was formerly said of republics alone, that they are a government of laws, not of men. They are found susceptible of order, method, and constancy, to a surprising degree. Property is there secure; industry is encouraged; the arts flourish; and the prince lives among his subjects like a father among his children." And Hume expressly adds that he saw more "sources of degeneracy" in free governments like England than in France, "the most perfect model of pure monarchy."[1]

[1] Hume. Essay xii, "Of Civil Liberty."

Nevertheless, Hume was unquestionably wrong in his conclusion, and Chesterfield was as unquestionably right. The French privileged classes might conceivably have foreseen the great Revolution, simply because it happened. The time, however, which is expended in wondering at their blindness, or in pitying it with an air of superior wisdom, is as nearly as possible wasted. Next to what a modern satirist has called "hypothetics" — the science of that which might have happened but did not — there is no more unprofitable study than the investigation of the possibly predictable, which was never predicted. It is of far higher advantage to note the mental condition of the French upper classes as one of the most remarkable facts in history, and to ask ourselves whether it conveys a caution to other generations than theirs. This line of speculation is at the least interesting. We too, who belong to western Europe towards the end of the nineteenth century, live under a set of institutions which all, except a small minority, regard as likely to be perpetual. Nine men out of ten, some hoping, some fearing, look upon the popular government which, ever widening its basis, has spread and is still spreading over the world, as destined to last forever, or, if it changes its form, to change it in one single direction. The democratic principle has gone forth conquering and to conquer, and its gainsayers are few and feeble. Some Catholics, from whose minds the diplomacy of the present Pope has not banished the syllabus of the last, a fairly large body of French and Spanish Legitimists, and a few aged courtiers in the small circles surrounding exiled German and Italian princes, may still believe that the cloud of democratic ascendency will pass away. Their hopes may be as vain as their regrets; but nevertheless those who recollect the surprises which the future had in store for men equally confident in the perpetuity of the present, will ask themselves whether it is really true that the expectation of virtual permanence for governments of the modern type rests upon solid grounds of historical experience as regards the past, and of rational probability as regards the time to come. I endeavor in these pages to examine the question in a spirit different from

that which animates most of those who view the advent of democracy either with enthusiasm or with despair.

Out of the many names commonly applied to the political system prevailing or tending to prevail in all the civilized portions of the world, I have chosen "popular government"[1] as the name which, on the whole, is least open to objection. But what we are witnessing in west European politics is not so much the establishment of a definite system, as the continuance, at varying rates, of a process. The truth is that, within two hundred years, the view taken of government, or (as the jurists say) of the relation of sovereign to subject, of political superior to political inferior, has been changing, sometimes partially and slowly, sometimes generally and rapidly. The character of this change has been described by John Stuart Mill, in the early pages of his *Essay on Liberty*, and more recently by Mr. Justice Stephen, who in his *History of the Criminal Law of England* very strikingly uses the contrast between the old and the new view of government to illustrate the difference between two views of the law of seditious libel. I will quote the latter passage as less colored than the language of Mill by the special preferences of the writer:

"Two different views may be taken of the relation between rulers and their subjects. If the ruler is regarded as the superior of the subject, as being by the nature of his position presumably wise and good, the rightful ruler and guide of the whole population, it must necessarily follow that it is wrong to censure him openly, and, even if he is mistaken, his mistakes should be pointed out with the utmost respect, and that, whether mistaken or not, no censure should be cast on him likely or designed to diminish his authority. If, on the other hand, the ruler is regarded as the agent and servant, and the subject as the wise and good master, who is obliged to delegate his power to the so-called ruler because, being a multitude, he

[1] It will be seen that I endeavor to use the term "democracy," throughout this volume, in its proper and only consistent sense; that is, for a particular form of government.

cannot use it himself, it must be evident that this sentiment must be reversed. Every member of the public who censures the ruler for the time being exercises in his own person the right which belongs to the whole of which he forms a part. He is finding fault with his own servant." [1]

The states of Europe are now regulated by political institutions answering to the various stages of the transition from the old view, that "rulers are presumably wise and good, the rightful rulers and guides of the whole population," to the newer view, that "the ruler is the agent and servant, and the subject the wise and good master, who is obliged to delegate his power to the so-called ruler because, being a multitude, he cannot use it himself." Russia and Turkey are the only European states which completely reject the theory that governments hold their powers by delegation from the community, the word "community" being somewhat vaguely understood, but tending more and more to mean at least the whole of the males of full age living within certain territorial limits. This theory, which is known on the Continent as the theory of national sovereignty, has been fully accepted in France, Italy, Spain, Portugal, Holland, Belgium, Greece, and the Scandinavian states. In Germany it has been repeatedly repudiated by the Emperor and his powerful minister, but it is to a very great extent acted upon. England, as is not unusual with her, stands by herself. There is no country in which the newer view of government is more thoroughly applied to practice, but almost all the language of the law and constitution is still accommodated to the older ideas concerning the relation of ruler and subject.

But, although no such inference could be drawn from English legal phraseology, there is no doubt that the modern popular government of our day is of purely English origin. When it came into existence, there were republics in Europe, but they exercised no moral and little political influence. Although in point of fact they were most of them strict oligarchies, they were regarded as somewhat plebeian governments, over which monarchies took

[1] Stephen's *History of the Criminal Law of England*, vol. ii., p. 299.

rightful precedence. "The republics in Europe," writes Hume in 1742, "are at present noted for want of politeness. The good manners of a Swiss civilized in Holland is an expression for rusticity among the French. The English in some degree fall under the same censure, notwithstanding their learning and genius. And if the Venetians be an exception, they owe it perhaps to their communication with other Italians." If a man then called himself a republican, he was thinking of the Athenian or Roman republic, one for a while in a certain sense a democracy, the other from first to last an aristocracy, but both ruling a dependent empire with the utmost severity. In reality, the new principle of government was solely established in England, which Hume always classes with republics rather than with monarchies. After tremendous civil struggles, the doctrine that governments serve the community was, in spirit if not in words, affirmed in 1689. But it was long before this doctrine was either fully carried out by the nation or fully accepted by its rulers. William III was merely a foreign politician and general, who submitted to the eccentricities of his subjects for the sake of using their wealth and arms in foreign war. On this point the admissions of Macaulay are curiously in harmony with the view of William taken in the instructions of Louis XIV to his diplomatists which have lately been published. Anne certainly believed in her own quasi-divine right; and George I and George II were humbler kings of the same type as William, who thought that the proper and legitimate form of government was to be found, not in England, but in Hanover. As soon as England had in George III a king who cared more for English politics than for foreign war, he repudiated the doctrine altogether; nor can it be said that it was really admitted by any English sovereign until, possibly, the present reign. But even when the horror of the French Revolution was at its highest, the politician, who would have been much in danger of prosecution if he had toasted the people as the "sole legitimate source of power," could always save himself by drinking to "the principles which placed the House of Hanover on the throne." These principles in the

meantime were more and more becoming the actual rule of government, and before George III died they had begun their victorious march over Europe.

Popular government, as first known to the English, began to command the interest of the Continent through the admiration with which it inspired a certain set of French thinkers towards the middle of the last century. At the outset, it was not English liberty which attracted them, but English toleration and also English irreligion, the last one of the most fugitive phases through which the mind of a portion of the nation passed, but one which so struck the foreign observer that, at the beginning of the present century, we find Napoleon Bonaparte claiming the assistance of the Pope as rightfully his because he was the enemy of the British misbeliever. Gradually the educated classes of France, at whose feet sat the educated class of all Continental countries, came to interest themselves in English political institutions; and then came two events, one of which greatly encouraged, while the other in the end greatly discouraged, the tendency of popular government to diffuse itself. The first of them was the foundation of the United States. The American constitution is distinctively English; this might be proved alone, as Mr. Freeman has acutely observed, by its taking two Houses, instead of one, or three, or more, as the normal structure of a legislative assembly. It is in fact the English constitution carefully adapted to a body of Englishmen who had never had much to do with an hereditary king and an aristocracy of birth, and who had determined to dispense with them altogether. The American republic has greatly influenced the favor into which popular government grew. It disproved the once universal assumptions, that no republic could govern a large territory, and that no strictly republican government could be stable. But at first the Republic became interesting for other reasons. It now became possible for Continental Europeans to admire popular government without submitting to the somewhat bitter necessity of admiring the English, who till lately had been the most unpopular of European nations. Frenchmen in particular,

who had helped and perhaps enabled the Americans to obtain their independence, naturally admired institutions which were indirectly their own creation; and Frenchmen who had not served in the American war saw the American freeman reflected in Franklin, who pleased the school of Voltaire because he believed nothing, and the school of Rousseau because he wore a Quaker coat. The other event strongly influencing the fortunes of popular government was the French Revolution, which in the long run rendered it an object of horror. The French, in their new constitutions, followed first the English and then the American model, but in both cases with large departures from the originals. The result in both cases was miserable miscarriage. Political liberty took long to recover from the discredit into which it had been plunged by the Reign of Terror. In England, detestation of the Revolution did not cease to influence politics till 1830. But, abroad, there was a reaction to the older type of popular government in 1814 and 1815; and it was thought possible to combine freedom and order by copying, with very slight changes, the British constitution. From a longing for liberty, combined with a loathing of the French experiments in it, there sprang the state of opinion in which the constitutional movements of the Continent had their birth. The British political model was followed by France, by Spain and Portugal, and by Holland and Belgium, combined in the kingdom of the Netherlands; and, after a long interval, by Germany, Italy, and Austria.

The principle of modern popular government was thus affirmed less than two centuries ago, and the practical application of that principle outside these islands and their dependencies is not quite a century old. What has been the political history of the commonwealths in which this principle has been carried out in various degrees? The inquiry is obviously one of much importance and interest; but, though the materials for it are easily obtained, and indeed are to a large extent within the memory of living men, it is very seldom or very imperfectly prosecuted. I undertake it solely with the view of ascertaining, within reasonable limits of space, how far actual experience countenances the common

assumption of our day, that popular government is likely to be of indefinitely long duration. I will first take France, which began with the imitation of the English, and has ended with the adoption of the American model. Since the introduction of political freedom into France, the existing government, nominally clothed with all the powers of the state, has been three times overturned by the mob of Paris, in 1792, in 1830, and in 1848. It has been three times overthrown by the Army; first in 1797, on the 4th of September (18 Fructidor), when the majority of the Directors with the help of the soldiery annulled the elections of forty-eight departments, and deported fifty-six members of the two Assemblies, condemning also to deportation two of their own colleagues. The second military revolution was effected by the elder Bonaparte on the 9th of November (18 Brumaire), 1799; and the third by the younger Bonaparte, on December 2, 1851. The French government has also been three times destroyed by foreign invasion, in 1814, 1815, and 1870; the invasion having been in each case provoked by French aggression, sympathized in by the bulk of the French people. In all, putting aside the anomalous period from 1870 to 1885, France, since she began her political experiments, has had forty-four years of liberty and thirty-seven of stern dictatorship.[1] But it has to be remembered, and it is one of the curiosities of this period of history, that the elder Bourbons, who in practice gave very wide room to political freedom, did not expressly admit the modern theory of popular government; while the Bonapartes, who proclaimed the theory without qualification, maintained in practice a rigid despotism.

Popular government was introduced into Spain just when the fortune of war was declaring itself decisively in favor of Wellington and the English army. The Extraordinary Cortes signed at Cadiz a constitution, since then famous in Spanish politics as the constitution of 1812, which proclaimed in its first article that sovereignty resided in the nation. Ferdinand VII, on re-entering Spain from France, repudiated this constitution, de-

[1] I include in the thirty-seven years the interval between September, 1797 and November, 1799.

nouncing it as Jacobinical; and for about six years he reigned as absolutely as any of his forefathers. But in 1820 General Riego, who was in command of a large force stationed near Cadiz, headed a military insurrection in which the mob joined; and the king submitted to the constitution of 1812. In 1823 the foreign invader appeared; the French armies entered Spain at the instigation of the Holy Alliance, and reëstablished Ferdinand's despotism, which lasted till his death. Popular government was, however, reintroduced by his widow as regent for his daughter, no doubt for the purpose of strengthening Isabella's title to the throne against her uncle, Don Carlos. It is probably unnecessary to give the subsequent political history of Spain in any detail. There are some places in South America where the people date events, not from the great earthquakes, but from the years in which, by a rare intermission, there is no earthquake at all. On the same principle we may note that during the nine years following 1845, and the nine years following 1857, there was comparative, though not complete, freedom from military insurrection in Spain. As to the residue of her political history, my calculation is that between the first establishment of popular government in 1812 and the accession of the present king, there have been forty military risings of a serious nature, in most of which the mob took part. Nine of them were perfectly successful, either overthrowing the constitution for the time being, or reversing the principles on which it was administered. I need hardly say that both the queen regent, Christina, and her daughter Isabella, were driven out of Spain by the army or the fleet, with the help of the mob; and that the present king, Alfonso, was placed on the throne through a military *pronunciamento* at the end of 1874. It is generally thought that he owes his retention of it since 1875 to statesmanship of a novel kind. As soon as he has assured himself that the army is in earnest, he changes his ministers.

The real beginning of popular or parliamentary government in Germany and the Austrian dominions, other than Hungary, cannot be placed earlier than 1848. The interest of German politics

from 1815 to that year consists in the complaints, ever growing fainter, of the German communities who sought to compel the princes to redeem their promises of constitutions made during the War of Independence, and of the efforts of the princes to escape or evade their pledges. Francis the Second expressed the prevailing feeling in his own way when he said to the Hungarian Diet, "totus mundus stultizat, et vult habere novas constitutiones."[1] With some exceptions in the smaller states there were no parliamentary institutions in Germany till the King of Prussia conceded, just before 1848, the singular form of constitutional government which did not survive that year. But as soon as the mob of Paris had torn up the French constitutional charter, and expelled the constitutional king, mobs, with their usual accompaniment, the army, began to influence German and even Austrian politics. National assemblies, on the French pattern, were called together at Berlin, at Vienna, and at Frankfort. All of them were dispersed in about a year, and directly or indirectly by the army. The more recent German and Austrian constitutions are all of royal origin. Taking Europe as a whole, the most durably successful experiments in popular government have been made either in small States, too weak for foreign war, such as Holland and Belgium, or in countries like the Scandinavian states, where there was an old tradition of political freedom. The ancient Hungarian constitution has been too much affected by civil war for any assertion about it to be safe. Portugal, for a while scarcely less troubled than Spain by military insurrection, has been free from it of late; and Greece has had the dynasty of her kings once changed by revolution.

If we look outside Europe and beyond the circle of British dependencies, the phenomena are much the same. The Civil War of 1861–1865, in the United States, was as much a war of revolution as the war of 1775–1782. It was a war carried on by the adherents of one set of principles and one construction of the constitution against the adherents of another body of principles

[1] The whole world is becoming foolish, and wishes to have new constitutions. — *Editors.*

and another constitutional doctrine. It would be absurd, however, to deny the relative stability of the government of the United States, which is a political fact of the first importance; but the inferences which might be drawn from it are much weakened, if not destroyed, by the remarkable spectacle furnished by the numerous republics set up from the Mexican border line to the Straits of Magellan. It would take many of these pages even to summarize the whole political history of the Spanish-American communities. There have been entire periods of years during which some of them have been disputed between the multitude and the military, and again when tyrants, as brutal as Caligula or Commodus, reigned over them like a Roman Emperor in the name of the Roman people. It may be enough to say of one of them, Bolivia, which was recently heard of through her part in the war on the Pacific coast, that out of fourteen presidents of the Bolivian republic thirteen have died assassinated or in exile.[1] There is one partial explanation of the inattention of English and European politicians to a most striking, instructive, and uniform body of facts: Spanish — though, next to English, it is the most widely diffused language of the civilized world — is little read or spoken in England, France, or Germany. There are, however, other theories to account for the universal and scarcely intermitted political confusion which at times has reigned in all Central and South America, save Chile and the Brazilian Empire. It is said that the people are to a great extent of Indian blood, and that they have been trained in Roman Catholicism. Such arguments would be intelligible if they were used by persons who maintained that a highly special and exceptional political education is essential to the successful practice of popular government; but they proceed from those who believe that there is at least a strong presumption in favor of democratic institutions everywhere. And as regards the Roman Catholic Church, it should at least be remembered that, whatever else it may be, it is a great school of equality.

I have now given shortly the actual history of popular govern-

[1] Arana, *Guerre du Pacifique*, vol. vii, p. 33.

ment since it was introduced, in its modern shape, into the civilized world. I state the facts, as matter neither for congratulation nor for lamentation, but simply as materials for opinion. It is manifest that, so far as they go, they do little to support the assumption that popular government has an indefinitely long future before it. Experience rather tends to show that it is characterized by great fragility, and that, since its appearance, all forms of government have become more insecure than they were before. The true reason why the extremely accessible facts which I have noticed are so seldom observed and put together is that the enthusiasts for popular government, particularly when it reposes on a wide basis of suffrage, are actuated by much the same spirit as the zealots of Legitimism. They assume their principle to have a sanction antecedent to fact. It is not thought to be in any way invalidated by practical violations of it, which merely constitute so many sins the more against imprescriptable right. The convinced partisans of democracy care little for instances which show democratic governments to be unstable. These are merely isolated triumphs of the principle of evil. But the conclusion of the sober student of history will not be of this kind. He will rather note it as a fact, to be considered in the most serious spirit, that since the century during which the Roman emperors were at the mercy of the prætorian soldiery, there has been no such insecurity of government as the world has seen since rulers become delegates of the community.

Is it possible to assign any reasons for this singular modern loss of political equilibrium? I think that it is possible to a certain extent. It may be observed that two separate national sentiments have been acting on western Europe since the beginning of the present century. To call them by names given to them by those who dislike them, one is Imperialism and the other is Radicalism. They are not in the least purely British forms of opinion, but are coextensive with civilization. Almost all men in our day are anxious that their country should be respected of all and dependent on none, that it should enjoy greatness and perhaps ascendancy; and this passion for national dignity has gone

hand in hand with the desire of the many, ever more and more acquiesced in by the few, to have a share of political power under the name of liberty, and to govern by rulers who are their delegates. The two newest and most striking of political creations in Europe, the German Empire and the Italian Kingdom, are joint products of these forces. But for the first of these coveted objects, imperial rank, great armies and fleets, are indispensable, and it becomes ever more a necessity that the men under arms should be nearly coextensive with the whole of the males in the flower of life. It is yet to be seen how far great armies are consistent with popular government resting on a wide suffrage. No two organizations can be more opposed to one another than an army scientifically disciplined and equipped, and a nation democratically governed. The great military virtue is obedience; the great military sin is slackness in obeying. It is forbidden to decline to carry out orders, even with the clearest conviction of their inexpediency. But the chief democratic right is the right to censure superiors; public opinion, which means censure as well as praise, is the motive force of democratic societies. The maxims of the two systems flatly contradict one another, and the man who would loyally obey both finds his moral constitution cut into two halves. It has been found by recent experience that the more popular the civil institutions, the harder it is to keep the army from meddling with politics. Military insurrections are made by officers, but not before every soldier has discovered that the share of power which belongs to him as a unit in a regiment is more valuable than his fragment of power as a unit in a constituency. Military revolts are of universal occurrence; but far the largest number have occurred in Spain and the Spanish-speaking countries. There have been ingenious explanations of the phenomenon, but the manifest explanation is habit. An army which has once interfered with politics is under a strong temptation to interfere again. It is a far easier and far more effective way of causing an opinion to prevail than going to a ballot box, and far more profitable to the leaders. I may add that, violent as is the improbability of military interference in some

countries, there is probably no country except the United States in which the army could not control the government, if it were of one mind and if it retained its military material.

Popular governments have been repeatedly overturned by the army and the mob in combination; but on the whole the violent destruction of these governments in their more extreme forms has been effected by the army, while in their more moderate shapes they have had the mob for their principal assailant. It is to be observed that in recent times mobs have materially changed both their character and their method of attack. A mob was once a portion of society in a state of dissolution, a collection of people who for the time had broken loose from the ties which bind society together. It may have had a vague preference for some political or religious cause, but the spirit which animated it was mainly one of mischief, or of disorder, or of panic. But mobs have now come more and more to be the organs of definite opinions. Spanish mobs have impartially worn all colors; but the French mob which overthrew the government of the elder Bourbons in 1830, while it had a distinct political object in its wish to defeat the aggressive measures of the king, had a further bias towards Ultra-Radicalism or Republicanism, which showed itself strongly in the insurrectionary movements that followed the accession of Louis Philippe to the throne. The mob, which in 1848 overturned the government of the younger Bourbons, aimed at establishing a republic, but it had also a leaning to socialism; and the frightful popular insurrection of June, 1848, was entirely socialistic. At present, whenever in Europe there is a disturbance like those created by the old mobs, it is in the interest of the parties which style themselves Irreconcilable, and which refuse to submit their opinions to the arbitration of any governments, however wide be the popular suffrage on which they are based. But besides their character, mobs have changed their armament. They formerly wrought destruction by the undisciplined force of sheer numbers; but the mob of Paris, the most successful of all mobs, owed its success to the barricade. It has now lost this advantage; and a generation is coming to maturity, which per-

haps will never have learned that the Paris of to-day has been entirely constructed with the view of rendering forever impossible the old barricade of paving stones in the narrow streets of the demolished city. Still more recently, however, the mob has obtained new arms. During the last quarter of a century, a great part, perhaps the greatest part, of the inventive faculties of mankind has been given to the arts of destruction; and among the newly discovered modes of putting an end to human life on a large scale, the most effective and terrible is a manipulation of explosive compounds quite unknown till the other day. The bomb of nitro-glycerine and the parcel of dynamite are as characteristic of the new enemies of government as their Irreconcilable opinions.

There can be no more formidable symptom of our time, and none more menacing to popular government, than the growth of Irreconcilable bodies within the mass of the population. Church and State are alike convulsed by them; but, in civil life, Irreconcilables are associations of men who hold political opinions as men once held religious opinions. They cling to their creed with the same intensity of belief, the same immunity from doubt, the same confident expectation of blessedness to come quickly which characterizes the disciples of an infant faith. They are doubtless a product of democratic sentiment; they have borrowed from it its promise of a new and good time at hand; but they insist on the immediate redemption of the pledge, and they utterly refuse to wait until a popular majority gives effect to their opinions. Nor would the vote of such a majority have the least authority with them, if it sanctioned any departure from their principles. It is possible, and indeed likely, that if the Russians voted by universal suffrage to-morrow, they would confirm the imperial authority by enormous majorities; but not a bomb nor an ounce of dynamite would be spared to the reigning emperor by the Nihilists. The Irreconcilables are of course at feud with governments of the older type, but these governments make no claim to their support; on the other hand, they are a portion of the governing body of democratic commonwealths, and from

this vantage ground they are able to inflict deadly injury on popular government. There is in reality no closer analogy than between these infant political creeds and the belligerent religions which are constantly springing up even now in parts of the world; for instance, that of the Tae-pings in China. Even in our own country we may observe that the earliest political Irreconcilables were religious or semireligious zealots. Such were both the Independents and the Jacobites. Cromwell, who for many striking reasons might have been a personage of a much later age, was an Irreconcilable at the head of an army; and we all know what he thought of the Parliament which anticipated the democratic assemblies of our day.

Of all modern Irreconcilables, the Nationalists appear to be the most impracticable, and of all governments, popular governments seem least likely to cope with them successfully. Nobody can say exactly what Nationalism is, and indeed the dangerousness of the theory arises from its vagueness. It seems full of the seeds of future civil convulsion. As it is sometimes put, it appears to assume that men of one particular race suffer injustice if they are placed under the same political institutions with men of another race. But Race is quite as ambiguous a term as Nationality. The earlier philologists had certainly supposed that the branches of mankind speaking languages of the same stock were somehow connected by blood; but no scholar now believes that this is more than approximately true, for conquest, contact, and the ascendancy of a particular literate class, have quite as much to do with community of language as common descent. Moreover, several of the communities claiming the benefit of the new theory are certainly not entitled to it. The Irish are an extremely mixed race, and it is only by a perversion of language that the Italians can be called a race at all. The fact is that any portion of a political society, which has had a somewhat different history from the rest of the parts, can take advantage of the theory and claim independence, and can thus threaten the entire society with dismemberment. Where royal authority survives in any vigor, it can to a certain extent deal with these demands.

Almost all the civilized states derive their national unity from common subjection, past or present, to royal power; the Americans of the United States, for example, are a nation because they once obeyed a king. Hence too it is that such a miscellany of races as those which make up the Austro-Hungarian Monarchy can be held together, at all events temporarily, by the authority of the emperor-king. But democracies are quite paralyzed by the plea of Nationality. There is no more effective way of attacking them than by admitting the right of the majority to govern, but denying that the majority so entitled is the particular majority which claims the right.

The difficulties of popular government, which arise from the modern military spirit and from the modern growth of Irreconcilable parties, could not perhaps have been determined without actual experience. But there are other difficulties which might have been divined, because they proceed from the inherent nature of democracy. In stating some of them, I will endeavor to avoid those which are suggested by mere dislike or alarm; those which I propose to specify were in reality noted more than two centuries ago by the powerful intellect of Hobbes, and it will be seen what light is thrown on some political phenomena of our day by his searching analysis.

Political liberty, said Hobbes, is political power. When a man burns to be free, he is not longing for the "desolate freedom of the wild ass;" what he wants is a share of political government. But, in wide democracies, political power is minced into morsels, and each man's portion of it is almost infinitesimally small. One of the first results of this political comminution is described by Mr. Justice Stephen in a work[1] of earlier date than that which I have quoted above. It is that two of the historical watchwords of Democracy exclude one another, and that, where there is political Liberty, there can be no Equality.

"The man who can sweep the greatest number of fragments of political power into one heap will govern the rest. The strongest man in one form or another will always rule. If the

[1] *Liberty, Fraternity, and Equality*, by Sir James Stephen, 1873, p. 239

government is a military one, the qualities which make a man a great soldier will make him a ruler. If the government is a monarchy, the qualities which kings value in counselors, in administrators, in generals, will give power. In a pure democracy, the ruling men will be the wire-pullers and their friends; but they will be no more on an equality with the people than soldiers or ministers of state are on an equality with the subjects of a monarchy. . . . In some ages, a powerful character, in others cunning, in others power of transacting business, in others eloquence, in others a good hold upon commonplaces and a facility in applying them to practical purposes, will enable a man to climb on his neighbors' shoulders and direct them this way or that; but under all circumstances the rank and file are directed by leaders of one kind or another who get the command of their collective force."

There is no doubt that, in popular governments resting on a wide suffrage, either without an army or having little reason to fear it, the leader, whether or not he be cunning, or eloquent, or well provided with commonplaces, will be the wire-puller. The process of cutting up political power into petty fragments has in him its most remarkable product. The morsels of power are so small that men, if left to themselves, would not care to employ them. In England, they would be largely sold, if the law permitted it; in the United States they are extensively sold in spite of the law; and in France, and to a less extent in England, the number of "abstentions" shows the small value attributed to votes. But the political *chiffonier*[1] who collects and utilizes the fragments is the wire-puller. I think, however, that it is too much the habit in this country to describe him as a mere organizer, contriver, and manager. The particular mechanism which he constructs is no doubt of much importance. The form of this mechanism recently erected in this country has a close resemblance to the system of the Wesleyan Methodists; one system, however, exists for the purpose of keeping the spirit of grace aflame, the other for maintaining the spirit of party at a

[1] Ragman. — *Editors.*

white heat. The wire-puller is not intelligible unless we take into account one of the strongest forces acting on human nature —party feeling. Party feeling is probably far more a survival of the primitive combativeness of mankind than a consequence of conscious intellectual differences between man and man. It is essentially the same sentiment which in certain states of society leads to civil, intertribal, or international war; and it is as universal as humanity. It is better studied in its more irrational manifestations than in those to which we are accustomed. It is said that Australian savages will travel half over the Australian continent to take in a fight the side of combatants who wear the same totem as themselves. Two Irish factions who broke one another's heads over the whole island are said to have originated in a quarrel about the color of a cow. In southern India a series of dangerous riots are constantly arising through the rivalry of parties who know no more of one another than that some of them belong to the party of the right hand and others to that of the left hand. Once a year, large numbers of English ladies and gentlemen, who have no serious reason for preferring one university to the other, wear dark or light blue colors to signify good wishes for the success of Oxford or Cambridge in a cricket match or boat race. Party differences, properly so-called, are supposed to indicate intellectual, or moral, or historical preferences; but these go a very little way down into the population; and by the bulk of partisans they are hardly understood and soon forgotten. "Guelf" and "Ghibelline" had once a meaning, but men were under perpetual banishment from their native land for belonging to one or other of these parties long after nobody knew in what the difference consisted. Some men are Tories or Whigs by conviction; but thousands upon thousands of electors vote simply for yellow, blue, or purple, caught at most by the appeals of some popular orator.

It is through this great natural tendency to take sides that the wire-puller works. Without it he would be powerless. His business is to fan its flame; to keep it constantly acting upon the man who has once declared himself a partisan; to make

escape from it difficult and distasteful. His art is that of the nonconformist preacher, who gave importance to a body of commonplace religionists by persuading them to wear a uniform and take a military title, or of the man who made the success of a temperance society by prevailing on its members to wear always and openly a blue ribbon. In the long run, these contrivances cannot be confined to any one party, and their effects on all parties and their leaders, and on the whole ruling democracy, must be in the highest degree serious and lasting. The first of these effects will be, I think, to make all parties very like one another, and indeed in the end almost indistinguishable, however leaders may quarrel and partisan hate partisan. In the next place, each party will probably become more and more homogeneous; and the opinions it professes, and the policy which is the outcome of those opinions, will less and less reflect the individual mind of any leader, but only the ideas which seem to that mind to be most likely to win favor with the greatest number of supporters. Lastly, the wire-pulling system, when fully developed, will infallibly lead to the constant enlargement of the area of suffrage. What is called universal suffrage has greatly declined in the estimation, not only of philosophers who follow Bentham, but of the *à priori* theorists who assumed that it was the inseparable accompaniment of a republic, but who found that in practice it was the natural basis of a tyranny. But extensions of the suffrage, though no longer believed to be good in themselves, have now a permanent place in the armory of parties, and are sure to be a favorite weapon of the wire-puller. The Athenian statesmen who, worsted in a quarrel of aristocratic cliques, "took the people into partnership," have a close parallel in the modern politicians who introduce household suffrage into towns to "dish" one side, and into counties to "dish" the other.

Let us now suppose the competition of parties, stimulated to the utmost by the modern contrivances of the wire-puller, to have produced an electoral system under which every adult male has a vote, and perhaps every adult female. Let us

assume that the new machinery has extracted a vote from every one of these electors. How is the result to be expressed? It is, that the average opinion of a great multitude has been obtained, and that this average opinion becomes the basis and standard of all government and law. There is hardly any experience of the way in which such a system would work, except in the eyes of those who believe that history began since their own birth. The universal suffrage of white males in the United States is about fifty years old; that of white and black is less than twenty. The French threw away universal suffrage after the Reign of Terror; it was twice revived in France, that the Napoleonic tyranny might be founded on it; and it was introduced into Germany, that the personal power of Prince Bismarck might be confirmed. But one of the strangest of vulgar ideas is that a very wide suffrage could or would promote progress, new ideas, new discoveries and inventions, new arts of life. Such a suffrage is commonly associated with Radicalism; and no doubt amid its most certain effects would be the extensive destruction of existing institutions; but the chances are that, in the long run, it would produce a mischievous form of Conservatism, and drug society with a potion compared with which Eldonine would be a salutary draught. For to what end, towards what ideal state, is the process of stamping upon law the average opinion of an entire community directed? The end arrived at is identical with that of the Roman Catholic Church, which attributes a similar sacredness to the average opinion of the Christian world. "Quod semper, quod ubique, quod ab omnibus,"[1] was the canon of Vincent of Lerins. "Securus judicat orbis terrarum,"[2] were the words which rang in the ears of Newman and produced such marvelous effects on him. But did any one in his senses ever suppose that these were maxims of progress? The principles of legislation at which they point would probably put an end to all social and political activities, and arrest everything which has ever been associated with Liber-

[1] What is approved always, everywhere, and by all. — *Editors.*

[2] The world is secure in its judgment. — *Editors.*

alism. A moment's reflection will satisfy any competently instructed person that this is not too broad a proposition. Let him turn over in his mind the great epochs of scientific invention and social change during the last two centuries, and consider what would have occurred if universal suffrage had been established at any one of them. Universal suffrage, which to-day excludes Free Trade from the United States, would certainly have prohibited the spinning jenny and the power loom. It would certainly have forbidden the threshing machine. It would have prevented the adoption of the Gregorian calendar; and it would have restored the Stuarts. It would have proscribed the Roman Catholics with the mob which burned Lord Mansfield's house and library in 1780, and it would have proscribed the Dissenters with the mob which burned Dr. Priestley's house and library in 1791.

There are possibly many persons who, without denying these conclusions in the past, tacitly assume that no such mistakes will be committed in the future, because the community is already too enlightened for them, and will become more enlightened through popular education. But without questioning the advantages of popular education under certain aspects, its manifest tendency is to diffuse popular commonplaces, to fasten them on the mind at the time when it is most easily impressed, and thus to stereotype average opinion. It is of course possible that universal suffrage would not now force on governments the same legislation which it would infallibly have dictated a hundred years ago; but then we are necessarily ignorant of what germs of social and material improvement there may be in the womb of time, and how far they may conflict with the popular prejudice which hereafter will be omnipotent. There is in fact just enough evidence to show that even now there is a marked antagonism between democratic opinion and scientific truth as applied to human societies. The central seat in all political economy was from the first occupied by the theory of population. This theory has now been generalized by Mr. Darwin and his followers, and, stated as the principle of

the survival of the fittest, it has become the central truth of all biological science. Yet it is evidently disliked by the multitude, and thrust into the background by those whom the multitude permits to lead it. It has long been intensely unpopular in France and the continent of Europe; and, among ourselves, proposals for recognizing it through the relief of distress by emigration are visibly being supplanted by schemes founded on the assumption that, through legislative experiments on society, a given space of land may always be made to support in comfort the population which from historical causes has come to be settled on it.

It is perhaps hoped that this opposition between democracy and science, which certainly does not promise much for the longevity of popular government, may be neutralized by the ascendancy of instructed leaders. Possibly the proposition would not be very unsafe, that he who calls himself a friend of democracy because he believes that it will be always under wise guidance is in reality, whether he knows it or not, an enemy of democracy. But at all events the signs of our times are not at all of favorable augury for the future direction of great multitudes by statesmen wiser than themselves. The relation of political leaders to political followers seems to me to be undergoing a twofold change. The leaders may be as able and eloquent as ever, and some of them certainly appear to have an unprecedentedly "good hold upon commonplaces, and a facility in applying them;" but they are manifestly listening nervously at one end of a speaking tube which receives at its other end the suggestions of a lower intelligence. On the other hand, the followers, who are really the rulers, are manifestly becoming impatient of the hesitations of their nominal chiefs, and the wrangling of their representatives. I am very desirous of keeping aloof from questions disputed between the two great English parties; but it certainly seems to me that all over Continental Europe, and to some extent in the United States, parliamentary debates are becoming ever more formal and perfunctory, they are more and more liable to being peremptorily cut

short, and the true springs of policy are more and more limited to clubs and associations deep below the level of the highest education and experience. There is one state or group of states, whose political condition deserves particular attention. This is Switzerland, a country to which the student of politics may always look with advantage for the latest forms and results of democratic experiment. About forty years ago, just when Mr. Grote was giving to the world the earliest volumes of his *History of Greece*, he published *Seven Letters on the Recent Politics of Switzerland*, explaining that his interest in the Swiss cantons arose from their presenting "a certain analogy nowhere else to be found in Europe" to the ancient Greek states. Now, if Grote had one object more than another at heart in writing his history, it was to show, by the example of the Athenian democracy, that wide popular governments, so far from meriting the reproach of fickleness, are sometimes characterized by the utmost tenacity of attachment, and will follow the counsels of a wise leader, like Pericles, at the cost of any amount of suffering, and may even be led by an unwise leader, like Nicias, to the very verge of destruction. But he had the acuteness to discern in Switzerland the particular democratic institution which was likely to tempt democracies into dispensing with prudent and independent direction. He speaks with the strongest disapproval of a provision in the constitution of Lucerne, by which all laws passed by the Legislative Council were to be submitted for veto or sanction to the vote of the people throughout the canton. This was originally a contrivance of the ultra-Catholic party, and was intended to neutralize the opinions of the Catholic Liberals by bringing to bear on them the average opinion of the whole cantonal population. A year after Mr. Grote had published his *Seven Letters*, the French Revolution of 1848 occurred, and three years later, the violent overthrow of the democratic institutions established by the French National Assembly was consecrated by the very method of voting which he had condemned, under the name of the Plébiscite. The arguments of the French Liberal party against the Plébiscite, during the

twenty years of stern despotism which it entailed upon France have always appeared to me to be arguments in reality against the very principle of democracy. After the misfortunes of 1870, the Bonapartes and the Plébiscite were alike involved in the deepest unpopularity; but it seems impossible to doubt that Gambetta, by his agitation for the *scrutin de liste*, was attempting to recover as much as he could of the plébiscitary system of voting. Meantime, it has become, in various shapes, one of the most characteristic of Swiss institutions. One article of the federal constitution provides that, if fifty thousand Swiss citizens, entitled to vote, demand the revision of the constitution, the question whether the constitution be revised shall be put to the vote of the people of Switzerland, "aye" or "no." Another enacts that, on the petition of thirty thousand citizens, every federal law and every federal decree, which is not urgent, shall be subject to the *referendum;* that is, it shall be put to the popular vote. These provisions, that when a certain number of voters demand a particular measure, or require a further sanction for a particular enactment, it shall be put to the vote of the whole country, seem to me to have a considerable future before them in democratically governed societies. When Mr. Labouchere told the House of Commons in 1882 that the people were tired of the deluge of debate, and would some day substitute for it the direct consultation of the constituencies, he had more facts to support his opinion than his auditors were perhaps aware of.

Here then we have one great inherent infirmity of popular governments, an infirmity deducible from the principle of Hobbes, that liberty is power cut into fragments. Popular governments can only be worked by a process which incidentally entails the further subdivision of the morsels of political power; and thus the tendency of these governments, as they widen their electoral basis, is towards a dead level of commonplace opinion, which they are forced to adopt as the standard of legislation and policy. The evils likely to be thus produced are rather those vulgarly associated with ultra-Conservatism than those of ultra-Radicalism. So far indeed as the human

race has experience, it is not by political societies in any way resembling those now called democracies that human improvement has been carried on. History, said Strauss — and, considering his actual part in life, this is perhaps the last opinion which might have been expected from him — History is a sound aristocrat.[1] There may be oligarchies close enough and jealous enough to stifle thought as completely as an Oriental despot who is at the same time the pontiff of a religion; but the progress of mankind has hitherto been effected by the rise and fall of aristocracies, by the formation of one aristocracy within another, or by the succession of one aristocracy to another. There have been so-called democracies which have rendered services beyond price to civilization, but they were only peculiar forms of aristocracy. The short-lived Athenian democracy, under whose shelter art, science, and philosophy shot so wonderfully upwards, was only an aristocracy which rose on the ruins of one much narrower. The splendor which attracted the original genius of the then civilized world to Athens was provided by the severe taxation of a thousand subject cities; and the skilled laborers who worked under Phidias, and who built the Parthenon, were slaves.

The infirmities of popular government, which consist in its occasional wanton destructiveness, have been frequently dwelt upon and require less attention. In the long run, the most interesting question which they suggest is, to what social results does the progressive overthrow of existing institutions promise to conduct mankind? I will again quote Mr. Labouchere, who is not the less instructive because he may perhaps be suspected of taking a certain malicious pleasure in stating roundly what many persons who employ the same political watchwords as himself are reluctant to say in public, and possibly shrink from admitting to themselves in their own minds.

[1] The opinion of Strauss appears to be shared by M. Ernest Renan. It occurs twice in the singular piece which he calls *Caliban*. "Toute civilisation est d'origine aristocratique" (p. 77). "Toute civilisation est l'œuvre des aristocrates" (p. 91).

"Democrats are told that they are dreamers, and why? Because they assert that, if power be placed in the hands of the many, the many will exercise it for their own benefit. Is it not a still wilder dream to suppose that the many will in future possess power, and use it not to secure what they consider to be their interests, but to serve those of others? . . . Is it imagined that artisans in our great manufacturing towns are so satisfied with their present position that they will hurry to the polls, to register their votes in favor of a system which divides us socially, politically, and economically, into classes, and places them at the bottom with hardly a possibility of rising? . . . Is the lot (of the agricultural laborer) so happy a one that he will humbly and cheerfully affix his cross to the name of the man who tells him that it can never be changed for the better? . . . We know that artisans and agricultural laborers will approach the consideration of political and social problems with fresh and vigorous minds. . . . For the moment, we demand the equalization of the franchise. . . . Our next demands will be electoral districts, cheap elections, payment of members, and abolition of hereditary legislators. When our demands are complied with, we shall be thankful, but we shall not rest. On the contrary, having forged an instrument for democratic legislation, we shall use it."[1]

The persons who charged Mr. Labouchere with dreaming because he thus predicted the probable course, and defined the natural principles, of future democratic legislation, seem to me to have done him much injustice. His forecast of political events is extremely rational; and I cannot but agree with him in thinking it absurd to suppose that, if the hard-toiled and the needy, the artisan and the agricultural laborer, become the depositaries of power, and if they can find agents through whom it becomes possible for them to exercise it, they will not employ it for what they may be led to believe are their own interests. But in an inquiry whether, independently of the alarm or enthusiasm which they excite in certain persons or classes, democratic

[1] *Fortnightly Review*, March 1, 1883.

institutions contain any seed of dissolution or extinction, Mr. Labouchere's speculation becomes most interesting just where it stops. What is to be the nature of the legislation by which the lot of the artisan and of the agricultural laborer is to be not merely altered for the better, but exchanged for whatever station and fortune they may think it possible to confer on themselves by their own supreme authority? Mr. Labouchere's language, in the above passage and in other parts of his paper, like that of many persons who agree with him in the belief that government can indefinitely increase human happiness, undoubtedly suggests the opinion that the stock of good things in the world is practically unlimited in quantity, that it is (so to speak) contained in a vast storehouse or granary, and that out of this it is now doled in unequal shares and unfair proportions. It is this unfairness and inequality which democratic law will some day correct. Now I am not concerned to deny that, at various times during the history of mankind, narrow oligarchies have kept too much of the wealth of the world to themselves, or that false economical systems have occasionally diminished the total supply of wealth, and, by their indirect operation, have caused it to be irrationally distributed. Yet nothing is more certain than that the mental picture which enchains the enthusiasts for benevolent democratic government is altogether false, and that, if the mass of mankind were to make an attempt at redividing the common stock of good things, they would resemble, not a number of claimants insisting on the fair division of a fund, but a mutinous crew, feasting on a ship's provisions, gorging themselves on the meat and intoxicating themselves with the liquors, but refusing to navigate the vessel to port. It is among the simplest of economical truths, that far the largest part of the wealth of the world is constantly perishing by consumption, and that, if it be not renewed by perpetual toil and adventure, either the human race, or the particular community making the experiment of resting without being thankful, will be extinguished or brought to the very verge of extinction.

This position, although it depends in part on a truth of which,

according to John Stuart Mill,[1] nobody is habitually aware who has not bestowed some thought on the matter, admits of very simple illustration. It used to be a question hotly debated among economists how it was that countries recovered with such surprising rapidity from the effects of the most destructive and desolating wars. "An enemy lays waste a country by fire and sword, and destroys or carries away nearly all the movable wealth existing in it, and yet, in a few years after, everything is much as it was before." Mill,[2] following Chalmers, gives the convincing explanation that nothing in such a case has happened which would not have occurred in any circumstances. "What the enemy has destroyed would have been destroyed in a little time by the inhabitants themselves; the wealth which they so rapidly reproduce would have needed to be reproduced and would have been reproduced in any case, and probably in as short an interval." In fact, the fund by which the life of the human race and of each particular society is sustained, is never in a statical condition. It is no more in that condition than is a cloud in the sky, which is perpetually dissolving and perpetually renewing itself. "Everything which is produced is consumed; both what is saved and what is said to be spent; and the former quite as rapidly as the latter." The wealth of mankind is the result of a continuing process, everywhere complex and delicate, and nowhere of such complexity and delicacy as in the British Islands. So long as this process goes on under existing influences, it is not, as we have seen, interrupted by earthquake, flood, or war; and, at each of its steps, the wealth which perishes and revives has a tendency to increase. But if we alter the character or diminish the force of these influences, are we sure that wealth, instead of increasing, will not dwindle and perhaps disappear? Mill notes an exception to the revival of a country after war. It may be depopulated, and if there are not men to carry it on, the process of reproduction will stop. But may it not be arrested by any means short of exterminating the population? An experience, happily now rare in

[1] Mill, *Principles of Political Economy*, i, 5. 5. [2] *Ibid.*, i, 5. 7.

the world, shows that wealth may come very near to perishing through diminished energy in the motives of the men who reproduce it. You may, so to speak, take the heart and spirit out of the laborers to such an extent that they do not care to work. Jeremy Bentham observed about a century ago that the Turkish government had in his day impoverished some of the richest countries in the world far more by its action on motives than by its positive exactions; and it has always appeared to me that the destruction of the vast wealth accumulated under the Roman Empire, one of the most orderly and efficient of governments, and the decline of western Europe into the squalor and poverty of the Middle Ages, can only be accounted for on the same principle. The failure of reproduction through relaxation of motives was once an everyday phenomenon in the East; and this explains to students of Oriental history why it is that throughout its course a reputation for statesmanship was always a reputation for financial statesmanship. In the early days of the East India Company, villages "broken by a severe settlement" were constantly calling for the attention of the government; the assessment on them did not appear to be excessive on English fiscal principles, but it had been heavy enough to press down the motives to labor, so that they could barely recover themselves. The phenomenon, however, is not confined to the East, where no doubt the motives to toil are more easily affected than in western societies. No later than the end of the last century, large portions of the French peasantry ceased to cultivate their land, and large numbers of French artisans declined to work, in despair at the vast requisitions of the Revolutionary Government during the Reign of Terror; and, as might be expected, the penal law had to be called in to compel their return to their ordinary occupations.[1]

It is perfectly possible, I think, as Mr. Herbert Spencer has shown in a recent admirable volume,[2] to revive even in our day

[1] Taine, *Origines de la France Contemporaine*, tom. iii., "La Révolution." See, as to artisans, p. 75 (note), and as to cultivators, p. 511.

[2] Herbert Spencer, *The Man versus the State*. London, 1884.

the fiscal tyranny which once left even European populations in doubt whether it was worth while preserving life by thrift and toil. You have only to tempt a portion of the population into temporary idleness by promising them a share in a fictitious hoard lying (as Mill puts it) in an imaginary strong box which is supposed to contain all human wealth. You have only to take the heart out of those who would willingly labor and save by taxing them *ad misericordiam* for the most laudable philanthropic objects. For it makes not the smallest difference to the motives of the thrifty and industrious part of mankind whether their fiscal oppressor be an Eastern despot, or a feudal baron, or a democratic legislature, and whether they are taxed for the benefit of a corporation called Society, or for the advantage of an individual styled King or Lord. Here then is the great question about democratic legislation, when carried to more than a moderate length. How will it affect human motives? What motives will it substitute for those now acting on men? The motives, which at present impel mankind to the labor and pain which produce the resuscitation of wealth in ever-increasing quantities, are such as infallibly to entail inequality in the distribution of wealth. They are the springs of action called into activity by the strenuous and never-ending struggle for existence, the beneficent private war which makes one man strive to climb on the shoulders of another and remain there through the law of the survival of the fittest.

These truths are best exemplified in the part of the world to which the superficial thinker would perhaps look for the triumph of the opposite principle. The United States have justly been called the home of the disinherited of the earth; but, if those vanquished under one sky in the struggle for existence had not continued under another the same battle in which they had been once worsted, there would have been no such exploit performed as the cultivation of the vast American territory from end to end and from side to side. There could be no grosser delusion than to suppose this result to have been attained by democratic legislation. It has really been obtained through the sifting out

of the strongest by natural selection. The government of the United States, which I examine in another part of this volume, now rests on universal suffrage, but then it is only a political government. It is a government under which coercive restraint, except in politics, is reduced to a minimum. There has hardly ever before been a community in which the weak have been pushed so pitilessly to the wall, in which those who have succeeded have so uniformly been the strong, and in which in so short a time there has arisen so great an inequality of private fortune and domestic luxury. And at the same time, there has never been a country in which, on the whole, the persons distanced in the race have suffered so little from their ill-success. All this beneficent prosperity is the fruit of recognizing the principle of population, and the one remedy for its excess in perpetual emigration. It all reposes on the sacredness of contract and the stability of private property, the first the implement, and the last the reward, of success in the universal competition. These, however, are all principles and institutions which the British friends of the "artisan" and "agricultural laborer" seem not a little inclined to treat as their ancestors did agricultural and industrial machinery. The Americans are still of opinion that more is to be got for human happiness by private energy than by public legislation. The Irish, however, even in the United States, are of another opinion, and the Irish opinion is manifestly rising into favor here. But on the question, whether future democratic legislation will follow the new opinion, the prospects of popular government to a great extent depend. There are two sets of motives, and two only, by which the great bulk of the materials of human subsistence and comfort have hitherto been produced and reproduced. One has led to the cultivation of the territory of the Northern States of the American Union, from the Atlantic to the Pacific. The other had a considerable share in bringing about the industrial and agricultural progress of the Southern States, and in old days it produced the wonderful prosperity of Peru under the Incas. One system is economical competition; the other consists in the daily task, perhaps fairly and kindly

allotted, but enforced by the prison or the scourge. So far as we have any experience to teach us, we are driven to the conclusion that every society of men must adopt one system or the other, or it will pass through penury to starvation.

I have thus shown that popular governments of the modern type have not hitherto proved stable as compared with other forms of political rule, and that they include certain sources of weakness which do not promise security for them in the near or remote future. My chief conclusion can only be stated negatively. There is not at present sufficient evidence to warrant the common belief that these governments are likely to be of indefinitely long duration. There is, however, one positive conclusion from which no one can escape who bases a forecast of the prospects of popular government, not on moral preference or *à priori* assumption, but on actual experience as witness by history. If there be any reason for thinking that constitutional freedom will last, it is a reason furnished by a particular set of facts, with which Englishmen ought to be familiar, but of which many of them, under the empire of prevailing ideas, are exceedingly apt to miss the significance. The British constitution has existed for a considerable length of time, and therefore free institutions generally may continue to exist. I am quite aware that this will seem to some a commonplace conclusion, perhaps as commonplace as the conclusion of M. Taine, who, after describing the conquest of all France by the Jacobin Club, declares that his inference is so simple, that he hardly ventures to state it. "Jusqua'à présent, je n'ai guère trouvé qu'un (principe) si simple qu'il semblera puéril et que j'ose à peine l'énoncer. Il consiste tout entier dans cette remarque, qu'une société humaine, surtout une société moderne, est une chose vaste et compliquée."[1] This observation, that "a human society, and particularly a

[1] Up to the present I have found scarcely more than a single generalization, which is so simple that it will seem childish, and that I hardly venture to pronounce it. It consists wholly in this observation: that a human society, especially a modern society, is a thing vast and complicated. — *Editors.*

modern society, is a vast and complicated thing," is in fact the very proposition which Burke enforced with all the splendor of his eloquence and all the power of his argument; but, as Taine says, it may now seem to some too simple and commonplace to be worth putting into words. In the same way, many persons in whom familiarity has bred contempt, may think it a trivial observation that the British constitution, if not (as some call it) a holy thing, is a thing unique and remarkable. A series of undesigned changes brought it to such a condition that satisfaction and impatience, the two great sources of political conduct, were both reasonably gratified under it. In this condition it became, not metaphorically but literally, the envy of the world, and the world took on all sides to copying it. The imitations have not been generally happy. One nation alone, consisting of Englishmen, has practiced a modification of it successfully, amidst abounding material plenty. It is not too much to say, that the only evidence worth mentioning for the duration of popular government is to be found in the success of the British constitution during two centuries under special conditions, and in the success of the American constitution during one century under conditions still more peculiar and more unlikely to recur. Yet, so far as our own constitution is concerned, that nice balance of attractions, which caused it to move evenly on its stately path, is perhaps destined to be disturbed. One of the forces governing it may gain dangerously at the expense of the other; but the British political system, with the national greatness and material prosperity attendant on it, may yet be launched into space and find its last affinities in silence and cold.

XIV

ETHICS OF CORPORATE MANAGEMENT[1]

ARTHUR TWINING HADLEY

[Arthur Twining Hadley (1856–) has been all his life associated with Yale University, as student, tutor, instructor, professor, and since 1899 as its president. President Hadley's special field of interest has been political science and political economy, particularly the practical questions of railroads and transportation, on which he is regarded as one of the first authorities in the country. For this reason he was appointed by President Taft in 1910 as head of the Railroad Securities Commission.

The following address on the *Ethics of Corporate Management* emphasizes the importance of high moral standards in business relations, an idea which is expressed in many of the author's writings and addresses. This point of view underlies the whole of President Hadley's treatment of the problems of monopoly. These problems, he thinks, cannot be effectively solved either by restrictive legislation or by any of the patent schemes for industrial reform, but only by the cultivation of a wider sense of responsibility and fair dealing on the part of corporations.

The *Ethics of Corporate Management* was one of the Kennedy Lectures for 1906, in the School of Philanthropy, New York. It was first published in the *North American*, January, 1907, and in the same year included with the other lectures of the series in the author's *Standards of Public Morality*.]

WHEN I go to a responsible store to make a purchase, I have every reason to believe that the price charged will be a fair one. I may not like the goods; I may not feel that I can afford the price; but if I like the goods and can afford the price, I assume that I am not being cheated. The competition of different establishments makes the general scale of charges just; and public sentiment in favor of a one-price system assures me that I shall

[1] Reprinted by permission from *Standards of Public Morality*, by Arthur Twining Hadley (The Macmillan Co.).

have the benefit of this general scale of charges in my own particular case.

If I go to a bank to borrow money on good security, I have the same feeling. The competition of responsible borrowers on the one hand, and responsible lenders on the other, makes a fair interest rate at which the number of those who can give good security for the management of other people's capital absorbs the offerings of those who are willing to lend their money. Or, if I try to sell my services in any of the recognized lines of industry, I have confidence that both the self-interest and self-respect of the man with whom I am dealing will lead him to offer me a fair market rate, and that the scale of wages or fees thus created will be more advantageous on the whole than anything which could be devised by law.

Of course there are numerous exceptions. The man or woman who hires a cab is by no means certain that the self-respect of the cabman will lead him to believe in a one-price system; and while the competition of different cabs with one another may make a fair enough average rate of compensation, there is great probability that extortion will be practiced in individual instances. Therefore the law steps in to regulate the price of cabs. The man or woman who has occasion to borrow of a pawnbroker has no assurance that the pawnbroker will believe in a one-price system or give the benefit of a market rate of interest. Hence there is a good deal of well-founded demand for usury laws. The only reason why we do not have them is because the advocates of such laws generally object to interest in itself, rather than to extortionate variations from market rates of interest.

But the most important cases of departure from the one-price system, and of apparent need of some further protection than is given by competition, do not come in connection with cabs or pawnbrokers or other minor industries of any kind. They come in connection with the dealings of large corporations which obtain a monopoly of the market for some line of goods or services.

In his charmingly practical book on *Politics*, Aristotle tells

two stories which are of perennial interest to the student of industrial combination. In the first of these he relates how Thales of Miletus was a great philosopher, but was reproached by his neighbors because he was not as rich as they were. By his acquaintance with astronomy, Thales foresaw that there would be large crops of olives; and he purchased all the olive presses of Miletus, depositing a very small sum in each case so as to make the transaction complete. When the olives were ripe, behold! there was no one but Thales to rent men the presses whereby they might make their oil; and Thales, who was thus able to charge what price he pleased, realized an enormous sum. He did this, says Aristotle, not because he cared for the money, but to show his neighbors that a philosopher can be richer than anybody else if he wants to, and if he is not, it simply proves that he has more worthy objects of contemplation.

There was a man in Syracuse, Aristotle goes on to say, in the days of Dionysius the Tyrant, who bought all the iron in Sicily on so narrow a margin that without raising the price very much he was able to make twice the amount of his total investment in a short time. When Dionysius the Tyrant heard of this, he was pleased with the ingenuity of the man; and he told him that he might keep his money, but that he had better leave Syracuse.

These stories show plainly enough that monopolies are no new thing; that more than two thousand years ago there was a Standard Oil Company of Asia Minor and a United States Steel Corporation of Sicily; and that the President of the United States is by no means the first monarch who has addressed himself somewhat aggressively to the problem of trust regulation. But in ancient times these monopolies of producers or merchants were an exception; now they are becoming the general rule.

The development of the power loom and the spinning machine in the middle of the eighteenth century, followed shortly by that of the steam engine, substituted a system of centralized industry, where a number of people work together, for the scattered industry of the older times, where people worked separately. The invention of the steamship and the railroad enabled the large

factories of modern times to send their goods all over the world, and allowed the establishments to increase in size as long as any economy in production was to be gained by such an increase. The capital required for these large industries was far beyond the power of any one man or any small group of partners to furnish. The modern industrial corporation, with free transfer of stock, limited liability of the shareholders, and representative government through a board of directors, was developed as a means of meeting this need for capital. Men who could take no direct part in the management of an industrial enterprise, and whose capital was only a very small fraction of what was needed for the purpose, could, under the system of limited liability, safely associate themselves with a hundred or a thousand others to take the chance of profit which concentration of capital afforded.

These industrial units soon became so large that a single one of them was able to supply the whole market. Competition was done away with, and monopoly took its place. This effect was first felt in the case of railroad transportation. You could not generally have the choice between two independent lines of railroad, because business which would furnish a profit to one line was generally quite inadequate to support a second. Nor could you hope for the competition of different owners of locomotives and cars on the same line of track, because of the opportunities for accident and loss to which such a system was exposed. In England, indeed, they were impressed with the analogy of a railroad to a turnpike or canal, and for nearly half a century after the establishment of railroads they made all their laws on the supposition that cars and locomotives would be owned by different people. But the failure of these laws, when so persistently enacted and backed by a conservatism of feeling so strong as that of the English nation, is the best proof of the impracticability of the scheme. By 1850 it became pretty clear that most railroads had a monopoly of their local business. By 1870 the consequences of this monopoly had become quite clearly apparent.

These consequences were in some respects good and in some respects bad. The railroad managers were quick to introduce

improvements and to effect economy of organization. These improvements allowed them to make rates very low on long-distance business in general, and particularly on business which came into competition with other railroads or with water routes. But the extreme lowness of these through rates only emphasized the glaring inequality between the treatment of the through or competitive business, and the local business of which the railroad had a monopoly. On the old turnpike the cost of transportation had been high, but the shipper could rely upon the price as fair. There was always enough competition between different carriers to prevent them from making extortionate profits on any one shipment. On the railroad which took the place of the turnpike the cost of transportation was very much lower, but there was no assurance whatever of fairness. The local rates were sometimes kept two or three times as high as the through ones; and the shipper had to see carloads of freight hauled to market past his house from more distant points at twenty-five dollars a carload, when he himself was paying fifty dollars a carload for but a part of the same haulage. Nor was this the worst. Arbitrary differences between places were bad enough; but there was a similar discrimination between different persons in the same place. The local freight agent was a sort of almoner of the corporation. The man who gained his ear, whether by honest means or not, got a low rate. The man who failed to get the ear of the freight agent had to pay a much higher rate for the same service.

In this country things were at their worst in the years immediately following the Civil War. While we had a one-price system in the trade of the country, both wholesale and retail, and in its banking, and to a large degree in its labor market, the whole system of American railroad rates was run on principles which a decently conducted store would have scorned to admit into its management. Our industrial methods had changed too fast for our ethics to keep pace with them. In the old-fashioned lines of business people were allowed to charge what prices they pleased, because competition kept their power of making mistakes within narrow limits. In the local railroad freight business

competition was done away with, and the managers did not see the necessity of substituting any other legal or moral restraint in its stead. In fact, they asserted a constitutional right to be free of all other legal or moral restraints. They regarded the liberty to serve the public in their own way, which had been allowed them under the competitive system, as carrying with it a right to hurt the public in their own way when the protection of competition was done away with. Instead of seeing that the constitutional rights for the protection of property had grown up because property was wisely used, they asserted that it was none of the public's business how they used the property, as long as they kept within the letter of the Constitution.

Of course this arbitrary exercise of power provoked a reaction. The state legislatures of the Mississippi Valley passed the various Granger laws which were placed on their statute books from 1870 to 1875.[1] These laws represented an attempt to reduce rates as unintelligent and crude as had been the attempts of the railroad agents to maintain rates. In the conflict of constitutional authority, the courts on the whole took the side of the legislature more than they did that of the railroads; and the ill-judged laws regulating railroad charges, which could not be repealed until several years too late, were an important factor in increasing the commercial distress that followed the crisis of 1873.

Just when things were at their worst a really great man appeared on the scene of action in Charles Francis Adams of the Massachusetts Railroad Commission. He promulgated an idea, essentially ethical in its character, which not only was of great service at the time, but has been the really vital force in all good schemes of corporate regulation ever since. It is hardly too much to say that all our plans for dealing with corporate monopoly have been successful according to the extent to which they conformed to Mr. Adams's idea, and that their ill success in various cases has been the result of their departure from it. Mr. Adams's central principle was this. In the management of a

[1] State statutes regulating charges for common carriers and other public service corporations. — *Editors.*

railroad the temporary interests of the road and of its various shippers are often divergent; but the permanent interests of the railroad and of the various shippers come very much closer together than the temporary ones, and can almost be said to coincide. A railroad which is managed to make the most profit for the moment will try to make very low rates on through business that might otherwise go to another line, and will squeeze to the utmost the local shippers who have no such refuge. But if a manager looks five years or ten years ahead, he will see that such a policy kills the local business, which after all must furnish the road's best custom, and stimulates a kind of competitive business which can and will go somewhere else when the slightest opportunity is given. The manager who looks to the future, therefore, instead of to the present, will put the local business on the same level as the through business; and if he makes any difference at all in the charge, it will be due to a slightly superior economy of handling large and regular consignments for long distances, as compared with the small and irregular consignments of intermediate points. The agent who simply wants to get the most money that he can for the moment will see an apparent advantage in making a special bargain with each customer. The agent who takes a long look ahead will do just what the storekeeper does who takes a long look ahead. He will see that the right customer to develop is the self-respecting man who is content with the same treatment as other customers; who is too proud for begging and too honest for bribery.

I cannot go into all the details of the application of this theory. Suffice it to say that during the comparatively short time when he was at the head of the Massachusetts Commission, Mr. Adams did, in fact, persuade the railroad men of his state, and of a great many other states, to take this view of the matter; that by his recommendation, made without any authority except the authority of common sense, he permanently removed more abuses in railroad management than all the various state statutes put together; and that the judicial decisions of the years from 1875 to 1885, when Mr. Adams's influence was dominant, show a con-

stantly increased understanding, not only of the principles of railroad economy, but of the principles which make for the permanent public welfare of shippers and investors alike.

I have spoken of Mr. Adams's influence as an ethical one. The Railroad Commission of Massachusetts, under the original bill which established it, had practically no powers except the power to report. It was for this reason regarded by many as likely to be a totally ineffective body. This absence of specific powers was just what Mr. Adams welcomed. It threw the Commission back on the power of common sense — which does not seem as strong as statutory rights to prosecute people and put them in prison, but which, in the hands of a man who really possesses it, is actually very much stronger. And when commissions of more recent years, disregarding the experience of Mr. Adams, have besought over and over again for an increase of their power to make rates, and their power to prosecute offenders, and their power to keep the courts from reviewing their acts, I am reminded of the minister in the country church, who said, "O Lord, we pray for power; O Lord, we pray for power;" until an old deacon, unable to contain himself, interrupted, "'Taint power you lack, young man; it's idees!"

In a complex matter like this we are governed by public opinion. Anything that makes it necessary for a man to get public opinion behind a measure of administration or regulation prevents him from trying unsound experiments, and assures him that the things that he carries through will be successful in fact and not merely in name. Good sense is needed to create acquiescence on the part of the courts, and to prevent widespread evasion of statutes and ordinances by the business men of the community as a body. Any measure which seems to dispense with the necessity of its exercise is pretty sure to end in disaster.

I have gone into the detail of Mr. Adams's work for the sake of this ethical lesson which it inculcates. We have passed beyond the conditions of Mr. Adams's time. National regulation has taken the place of state regulation of railroads. Other forms of corporate activity have organized into monopolies perhaps

more widespread and powerful than any railroad monopoly ever was. The relations of corporations to their employees, and the mutual duties of organizations of capital and labor toward the public in making continuous public service possible, have become vastly more complex than they were thirty years ago. But the essential fact still remains that the problem can be settled only by the exercise of common sense and a certain amount of unselfishness. Any law which seeks to render these qualities unnecessary or superfluous is foredoomed to failure. Any citizen who lets these qualities fall into abeyance falls short of a proper conception of public duty. The larger his position of influence in the industrial world, the greater is the responsibility upon him to bring these qualities into use in the conduct of corporate business.

The president of a large corporation is in a place of public trust. In an obvious sense he is a trustee for the stockholders and creditors of his corporation. In a less obvious but equally important sense he is a trustee on behalf of the public.

In regard to the first of these points, the community has made substantial and gratifying progress toward proper moral standards and their enforcement. It will perhaps create surprise that I say this so unreservedly, when we have the results of the insurance scandals freshly in mind.[1] But bad as these things were, they were not nearly so bad as many things that happened a generation earlier; and when the insurance scandals became known, they created an outburst of public feeling of a very different kind from anything which would have developed forty years ago. The spontaneous and overwhelming character of this outburst shows a great moral advance. In the year 1870 it was the commonest thing in the world for the president of a large corporation to use his position as a means of enriching himself and his friends at the expense of the stockholders in general; and it might almost be added that it was the rarest thing in the world

[1] The insurance scandals exposed by the New York Legislative Investigating Committee in 1905, involving some of the most powerful companies in the state. — *Editors.*

for anybody to object. The fact that Cornelius Vanderbilt admitted his stockholders to the benefit of profitable "deals," instead of taking the whole for himself and his friends, was a sufficient departure from the usage of the time to excite universal remark. The worst things which were done in our insurance companies represent a pious regard for the law and a scrupulous observance of the principles of morality, as compared with some of the transactions in Erie in the early seventies. Ten years later things had improved. It was no longer considered proper for a president to wreck his company in order to enrich himself. Yet even in this decade it was held that minorities of stockholders had no rights which majorities were bound to respect; and while the public did not justify the president in getting rich at the expense of his stockholders, it saw no harm if he used his inside information to get rich at the expense of anybody and everybody else. It is greatly to the credit of some of our best railroad men that in the last decade of the nineteenth century we rose above this state of things. The example of a recent president of the Lake Shore Railroad, who died a relatively poor man when the stock of his corporation stood higher than that of almost any other railroad in the country, is a thing which deserves to be remembered — and which has been.

Banks and railroads were the two lines of business where corporate scandals first developed on a large scale. They are now the two lines of business where standards of corporate honor, beyond what the law could enforce, have become pretty well established. This is no mere coincidence. Corporate powers gave opportunities for abuse which did not exist before. Where these powers were greatest, these abuses developed first and made the earliest public scandals. It was here that the business men themselves felt the need of remedies deeper reaching than those which the law could give. Combinations of merchants or manufacturers or of financiers outside the regular lines of banking were a later thing, and therefore we are only at this moment correcting the evils which are incident to their conduct.

It takes a long time for a man to learn to transfer a principle

of morality which he fully recognizes in one field to another field of slightly different location and character, particularly if the application of strict morality in the new field is going to hurt his personal interest. I remember a story of a country court in a warranty case which furnishes an instance in point. One man had sold another a cow, and had represented that cow as possessing certain good qualities — adding, however, that he did not warrant her. The cow proved not to possess the qualities alleged, and the buyer sought to recover the purchase money. As there was no dispute about the facts, the plaintiff's attorney thought that he had an easy case; for it is a well-established principle of law that a disclaimer of warranty in such a sale does not protect the transaction from the taint of fraud, if the matters in question were ones which the seller really could know and the buyer could not. He showed a sufficient number of legal precedents to illustrate this principle, but was somewhat dumfounded when the opposing lawyer rose and said: "May it please the court, every one of the cases cited by my learned brother is a horse case. I defy him to produce one relating to horned cattle." The court was impressed with this fact, and instructed the jury to the effect that it had been established from time immemorial that a disclaimer of warranty was invalid with regard to a horse, but that the case of a cow was something totally different. We witnessed a somewhat similar condition in recent years, when men who would have recognized that it was wrong to get rich at the expense of a stockholder, who had clear and definite rights to dividends that were earned, were perfectly willing to use all kinds of means to enrich themselves at the expense of the policyholders, whose rights were vague and indefinite. The lesson of last year was a terrible one; but I believe that it has been thoroughly learned. The business community of to-day recognizes that the president and directors of a corporation have a fiduciary relation both to their stockholders and to their creditors; that any man who disregards this relation is guilty of breach of trust, just as much as he would be if he used his position as guardian of an orphan to enrich himself at the expense of his ward. If any

man does not see this, the business community despises his intellect. If he does see this and acts in disregard of it, the business community despises his character.

Unfortunately the obligation of the managers of our corporations to the public is not yet as clearly recognized as their obligation to the stockholders. Some of those who are most scrupulous about doing all that they can for the stockholders make this an excuse for doing as little as they can for the public in general, and disclaim indignantly the existence of any wider trust or any outside duty which should interfere with the performance of their primary trust to the last penny. There is many a man who in the conduct of his own life, and even of his own personal business, is scrupulously regardful of public opinion, but who, as the president of a corporation, disregards that opinion rather ostentatiously. Personally he is sensitive to public condemnation; but as a trustee he honestly believes that he has no right to indulge any such sensitiveness. He is unselfish in the one case, and selfish in the other. I believe that this results from an extremely shortsighted view of the matter; and that the conscientious fulfillment of wider obligations, which he assumes as a matter of course when his own money is at stake, is at once wise policy and sound morality when he is acting as trustee for the money and interests of others.

Even from the narrowest standpoint of pecuniary interest, the duty of the corporate president to the investors demands that he should by his life and his language strive to diminish the danger of legal spoliation which threatens property rights in general and the rights of corporate property in particular. This obligation is partly recognized, and partly not. Our leaders of industry, as a rule, do not spend great sums on ostentatious luxury, and do spend great sums on objects of public benefit. Both of these facts are invaluable conservative forces. On the other hand, too many of them insist publicly on an extreme view of their legal rights and claims, which cannot help irritating their opponents, and which does a great deal more harm to the interests of property than most people think. It was the arrogance of the

freight agents, quite as much as the mistakes in their schedule of charges, that precipitated the Granger agitation. They defiantly refused to recognize the shipper's point of view. Every such defiance by the head of a large corporation makes more converts to radicalism and socialism than the speaker ever dreams. If a man intends to stand on his legal rights, it is generally wise for him to keep as quiet as the circumstances admit. The cases are few and far between where a loud statement in advance that he is going to stand on his legal rights, and that those rights in his judgment are consonant with the laws of God, produces anything but an adverse effect on his interests and on the interests of those whom he represents. It is not for the profit of the year's balance sheet that the corporate president should regard himself as responsible, but for the profit in the long run; and that profit in the long run is identified with the maintenance of a conservative spirit and the avoidance of unnecessary conflicts between those who have and those who have not.

The duty of the corporate president to the investors also demands that he use all wise means for the maintenance of continuous public service. The more complete the monopoly which he has, and the more vital the public necessity which he provides, the greater is the importance of this aspect of his trust for the permanence of the interests which he represents. For if the employer is indifferent to the public need in this regard, the employees will be still more indifferent. If he tries to make public necessity a means to reënforce his demands, they will make that public necessity a means to reënforce their demands; and in this contest the employees will have every advantage on their side. Each conflict of this kind will increase the demand for public regulation of corporate affairs, even if the interests of the investors suffer thereby; and it may reach a point where many lines of business will be taken out of the hands of private corporations and into the hands of the government.

In the old days, when the public was served by a number of independent establishments, a strike was a grave matter for the establishment where it existed and a comparatively small thing

for anybody else. The public got its goods from some other quarter. The slight shortage in the supply might raise the prices a little, but it did not produce a famine. The community as a whole could wait complacently for the fight to be settled. If, however, the company has a monopoly, the conditions are reversed. The strike, if protracted, causes great inconvenience and generally considerable suffering to the public, while the effect on the finances of the corporation is often comparatively slight. Indeed, it has become a proverb that strikes are not as a rule good reasons for sale of the securities of the companies affected. I am afraid that this fact makes the presidents of our corporations, especially those who hold a narrow view of their duties, more careless than they otherwise would be about men whom they choose for positions of superintendence, and about the policy which they adopt in early stages of labor disputes. But it is upon care in these particulars, rather than upon any machinery for compulsory arbitration, that we must rely for the prevention of strikes. I suppose that sometime we shall devise systems of arbitration which will avoid a large number of our industrial quarrels; but those that I have actually seen in operation do not appear very promising. We are told that compulsory arbitration has been made to work in New Zealand; but some of the official information which we get from New Zealand has been so totally discredited that we must be a little cautious about accepting any of the testimony which is transmitted to us. Nor do I believe very greatly in the efficiency of profit-sharing systems as a general means of preventing labor troubles. Sometimes they work well; oftener they do not. Plans for attaching the laborers to the corporate service by pension funds, by the distribution of stock, and other means of this kind, are perhaps rather more promising. Yet even these are limited in their applicability, and sometimes cause more unrest than they prevent.

For the present, it is not to any machinery that we must look for the solution of these difficulties. It is to a wider sense of responsibility on the part of directors and general officers. The

man who selects his subordinates solely for their fitness in making the results of the year's accounts look best, and instructs them to work for these results at the sacrifice of all other interests, encourages the employees to work for themselves in defiance of the needs either of the corporation or of the public, and does more than almost any professional agitator to foster the spirit which makes labor organizations unreasonable in their demands and defiant in their attitude. For the laborers, like some of the rest of us, are a good deal more affected by feeling than by reason; a good deal more influenced by examples than by syllogisms.

When I was connected with the *Railroad Gazette*, we had occasion to discuss a strike on the part of one of the best of the labor unions, in which, contrary to the usual practice of that organization, the demands were quite unreasonable. There was something puzzling in the whole situation, which I could not account for. A close observer who, though he was on the side of the corporation, had sense enough to look at the facts dispassionately, said, "Do you know Blank?" naming a man high in the operating department of the road concerned. I said that I did. "Blank," he said, "is an honest man. He is, according to all his lights, an honorable man. And yet if Blank were placed over me, I would strike on any pretext, good or bad, just to show how I hated his ways of doing business. This strike is, of course, an unjustifiable one. For the sake of all concerned it should be stopped as soon as possible, and your paper should say so. But when the strike is over, sail into the road with all your might for employing a man like Blank in a position precisely the opposite of anything for which Providence designed him." It soon became evident that this was a true account of the origin of the strike. The company saw the situation and transferred the man, on its own account, to another post for which he was more fitted.

Workmen are accessible to examples of loyalty, as well as examples of selfishness. One of our very large manufacturing concerns in western Pennsylvania a few years ago made a change

in its operating head. Not many months after the change I had the opportunity to inquire of a foreman how things were working under the new management. "Sir," was the reply, "there isn't a man in the works but what would go straight through hell with the new boss if he wanted it." I told the "new boss" the story; and all he said was, "I guess they know that I'd do the same for them." That was the voice of a man — an exceptional man; but what he really accomplished represents a kind of result which all of us will do well to keep in view.

In the great railroad strikes of 1877, when the Brotherhood of Locomotive Engineers, — at that time a far less conservatively managed organization than it has since become, — intoxicated with its successes in the South, ordered a general tie-up of New England, the men of the New York & New England Railroad met the order with a flat refusal. They had no other reason, and they gave no other reason, than their loyalty to a man who was at that time a superintendent of no particular reputation or influence outside of his own immediate sphere of duty, — Charles P. Clark, who afterward became president of the road. That one man by his personality not only prevented a general strike throughout New England, but by that act restored the balance of industrial force in the United States at a time when it was more seriously threatened than it ever has been before or since.

A few years later, when a strike on the Union Pacific Railroad was scheduled by the Knights of Labor, the president of that road prevented the strike by the simple expedient of so arranging matters that the responsibility for the interruption of public service would at each stage of the proceedings be clearly put upon the labor leaders themselves. If the company had been simply claiming the right to serve itself, they would have claimed an equal right to serve themselves, and might very possibly have had the sympathy of the public behind them. But when matters were so arranged in advance that the responsibility for the interruption rested upon their shoulders alone, even the Knights of Labor — and Western Knights of Labor at that — shrank from

taking the responsibility of a conflict with the nation. Of course strikes will continue to occur after all precautions are taken. They may come to the man or the company that least deserves it. But we can impress upon the managers of corporations the duty of showing more solicitude for the protection of the public against the disastrous results of the strike when it does come, and the unwisdom of saying much about the sacredness of the rights of private property under the Constitution at a time when such words can only irritate the employees and alienate the suffering public.

There is, indeed, a sacredness of property right in this country which goes far beyond the letter of the Constitution. The Constitution guarantees that no man shall be deprived of his property without due process of law; that no state shall pass any law impairing the obligation of contract; and that a corporation has the right of a person in the sense of being entitled to fair and equal treatment. The conservatism of the American people goes farther than this. It supports a business man in the exercise of his traditional rights, because it believes, on the basis of the experience of centuries, that the exercise of these rights will conduce to the public interests. It puts the large industries of the country in the hands of corporations, even when this results in creating corporate monopoly, because it distrusts the unrestricted extension of government activity, and believes that business is on the whole better handled by commercial agencies than by political ones. But every case of failure to meet public needs somewhat shakes the public in this confidence; and this confidence is not only shaken but destroyed if the manager of a corporation claims immunity from interference as a moral or constitutional right, independent of the public interests involved.

Personally, I am one of those who look with serious distrust on each extension of political activity. I believe that the interstate commerce law[1] did more to prevent wise railroad regulation than any other event in the history of the country. I think

[1] A federal act for the regulation of railroad rates, passed in 1887. — *Editors.*

that the courts would have dealt with our industrial problems better than they have done if the antitrust act[1] had never been passed. I have gravely doubted the wisdom of some of the more recent measures passed by the national government. But I cannot shut my eyes to the fact that these things are what business men must expect unless business ethics is somewhat modified to meet existing conditions. Industrial corporations grew up into power because they met the needs of the past. To stay in power, they must meet the needs of the present, and arrange their ethics accordingly. If they can do it by their own voluntary development of the sense of trusteeship, that is the simplest and best solution. But if not, one of two things will happen: vastly increased legal regulation, or state ownership of monopolies. Those who fear the effects of increased government activity must prove by their acceptance of ethical duties to the public that they are not blind devotees of an industrial past which has ceased to exist, but are preparing to accept the heavier burdens and obligations which the industrial present carries with it.

[1] Passed by Congress in 1890 "to protect trade and commerce against unlawful restraints and monopolies." — *Editors.*

XV

THE LABOR QUESTION FROM THE SOCIALIST STANDPOINT

WILLIAM MORRIS

[William Morris (1834–1896) as a man of letters was distinguished for his interest in the revival of medieval romanticism. In his public life he was probably still more widely known as a sympathetic and practical philanthropist, and a remarkably gifted designer, craftsman, and printer of exquisite books. His social views embrace the belief that much of the sordidness and misery occasioned by our modern industrial system may be eliminated by a benevolent socialism, and that the gradual return of simpler conditions of life and a more sincere attitude toward the question of class relationships will revive in man a dignified personal interest in the labor of his hands. In this connection he defines his conception of art: "The thing which I understand by real art is the expression by man of his pleasure in labor. I do not believe he can be happy in his labor without expressing that happiness." It is a point of importance that his interest in socialistic theories was the outgrowth of his study of medieval art, and of the social conditions which produced it. Morris stands with John Ruskin not as a skilled economic theorist, but as the exponent of a generous and enlightened humanitarianism.

The Labor Question from the Socialist Standpoint, which is one of Morris's numerous addresses on socialistic topics, was delivered as a lecture in Scotland in 1886, and was printed in Edinburgh as a penny pamphlet in the same year. The lecture is a criticism of the oppressive tendencies of modern commercialism, and not an attempt to formulate a program of amelioration.]

I HAVE been asked to give you the socialist view on the labor question. Now, in some ways that is a difficult matter to deal with — far beyond my individual capacities — and would also be a long business; yet in another way, as a matter of principle, it is not difficult to understand or long to tell of, and it does not need previous study or acquaintance with the works

of specialists or philosophers. Indeed, if it did, it would not be a political subject, and I hope to show you that it is preëminently political in the sense in which I should use the word; that is to say, that it is a matter which concerns every one, and has to do with the practical everyday relations of his life, and that not only as an individual, but as a member of a body corporate, nay, as a member of that great corporation — humanity. Thus considered, it would be hard indeed if it could not be understood readily by a person of ordinary intelligence who can bring his mind to bear upon prejudice. Such a person can learn the basis of the opinion in even an hour's talk, if the matter be clearly put before him: it is my task to attempt this; and whether I fail or succeed, I can at least promise you to use no technical phrases which would require explanation; nor will I, as far as I can help, go into any speculative matter, but will be as plain and practical as I can be.

Yet I must warn you that you may be disappointed when you find that I have no elaborate plan, no details of a new society to lay before you, that to my mind to attempt this would be putting before you a mere delusion. What I ask you to consider is in the main the clearing away of certain obstacles that stand in the way of the due and unwasteful use of labor — a task not light, indeed, nor to be accomplished without the most strenuous effort in the teeth of violent resistance, but yet not impossible for humanity as we know it, and, as I firmly believe, not only necessary, but as things now are, the one thing essential to be undertaken.

Now, you all know that, taking mankind as a whole, it is necessary for man to labor in order to live. Certainly not all things that we enjoy are the works of man's labor; the beauty of the earth, and the action of nature on our sensations, are always here for us to enjoy, but we can only do so on the terms of our keeping ourselves alive and in good case by means of labor, and no inventions can set aside that necessity. The merest savage has to pluck the berry from the tree, or dig up the root from the ground before he can enjoy his dog-like sleep

in sun or shade; and there are no savages who have not got beyond that stage, while the progressive races of mankind have for many ages got a very long way beyond it, so that we have no record of any time when they had not formed some sort of society, whose aim was to make the struggle with nature for subsistence less hard than it otherwise would have been, to win a more abundant livelihood from her.

We cannot deal at any length with the historical development of society; our object is simply to inquire into the constitution of that final development of society under which we live. But one may first ask a few questions: first, since the community generally must labor in order that the individuals composing it may subsist, and labor harder in order that they may attain further advantages, ought not a really successful community so to arrange that labor that each capable person should do a fair share of it and no more? Second, should not a really successful community — established surely for the benefit of all its members — arrange that every one who did his due share of labor should have his due share of the wealth earned by that labor? Third, if any labor was wasted, such waste would throw an additional burden on those who produced what was necessary and pleasant to existence. Should not a successful community, therefore, so organize its labor that it should not be wasted? You must surely answer "Yes" to each of these three questions. I will assert, then, that a successful society — a society which fulfilled its true functions — would take care that each did his due share of labor, that each had his due share of wealth resulting from that labor, and that the labor of persons generally was not wasted. I ask you to remember those three essentials of a successful society throughout all that follows, and now to let me apply them as a test of success to that society in which we live, the latest development of so many ages of the struggle with nature, our elaborate and highly organized civilization.

In our society, does each capable person do his fair share of labor? Is his share of the wealth produced proportionate to his labor? Is the waste of labor avoided in our society?

You may, perhaps, hesitate in your answer to the third question; you cannot hesitate to say "No" to the two first. I think, however, I shall be able to show you that much labor is wasted, and that, therefore, our society fails in the three essentials necessary for a successful society. Our civilization, therefore, though elaborate and highly organized, is a failure; that is, supposing it to be the final development of society, as some people, nay, most people, suppose it to be.

Now a few words as to the course of events which have brought us to the society of the present day. In periods almost before the dawn of continuous history, the early progressive races from which we are descended were divided into clans or families, who held their wealth, such as it was, in common within the clan, while all outside the clan was hostile, and wealth not belonging to the clan was looked upon as prize of war. There was consequently continual fighting of clan with clan, and at first all enemies taken in war were slain; but after a while, as man progressed and got defter with his hands, and learned how to make more effective tools, it began to be found out that, so working, each man could do more than merely sustain himself; and then some of the prisoners of war, instead of being slain on the field, were made slaves of; they had become valuable for work, like horses. Out of the wealth they produced their masters or owners gave them sustenance enough to live on and took the rest for themselves. Time passed, and the complexity of society grew, the early barbarism passed through many stages into the ancient civilizations, of which Greece and Rome were the great representatives; but this civilization was still founded on slave labor; most of its wealth was created by men who could be sold in the market like cattle. But as the old civilizations began to decay, this slave labor became unprofitable; the countries comprised in the Roman Empire were disturbed by constant war; the governments, both central and provincial, became mere taxgathering machines, and grew so greedy that things became unbearable. Society became a mere pretext for taxgathering, and fell to pieces, and chattel slavery fell with it,

since under all these circumstances slaves were no longer valuable.

Then came another change. A new society was formed, partly out of the tribes of barbarians who had invaded the Roman Empire, and partly out of the fragments of that Empire itself; the feudal system arose, bearing with it new ideas, which I have not time to deal with here and now. Suffice it to say, that in its early days mere chattel slavery gave place to serfdom. Powerful men, privileged men, had not forgotten that men can produce more by a day's labor than will keep them alive for a day; so now they settled their laborers on certain portions of land, stocked their land with them, in fact, and on these lands they had leave to live as well as they might on the condition that they should work a certain part of their time on the land which belonged to their lords. The average condition of these serfs was better than that of the chattel slaves. They could not be bought and sold personally, they were a part of the manor on which they lived, and they had as a class a tendency to become tenants by various processes. In one way or another these serfs got gradually emancipated, and during a transitional period, lasting through the two last centuries of the Middle Ages, the fourteenth and fifteenth centuries, the labor classes were in a far better position than they had been before, and in some ways than they have been since, suffering more from spasmodic arbitrary violence than from chronic legal oppression. The transition from this period to our own days is one of the most interesting chapters of history; but it is impossible for me to touch on it here. All I can say is, that the emancipated serfs formed one of the elements that went to make up our present middle class, and that a new class of workers grew up beneath them — men who were not owned by any one, who were bound by no legal ties to such and such a manor, who might earn what livelihood they could for themselves under certain conditions, which I will presently try to lay before you, and which are most important to be considered, for this new class of so-called free laborers has become our modern working class.

Now it will be clear to you, surely, how much and how grievously both the classical period, with its chattel slavery, and the feudal system, with its serfdom, fell short of the society which we have set before us as reasonably successful. In each of them there was a class obviously freed from the necessity of labor, by means of the degradation of another class which labored excessively and reaped but a small reward for its excessive labor. Surely there was something radically wrong in these two societies. From the fact that labor is necessary for man's life on the earth, and that nature yields her abundance to labor only, one would be inclined to deduce the probability that he who worked most would be the best off; but in these slave and serf societies the reverse was the case: the man of leisureless toil lived miserably, the man who did nothing useful lived abundantly. Then, again, as to our third test, was there no waste of labor? Yes, indeed, there was waste most grievous. I have said that the slave owner or the lord of the manor did nothing useful, and yet he did something — he was bound to do something, for he was often energetic, gifted, and full of character — he made war ceaselessly, consuming thereby the wealth which his slaves or his serfs created, and forcing them to work the more grievously. Here was waste enough, and lack of organization of labor.

Well, all this people found no great difficulty in seeing, and few would like, publicly at least, to confess a regret for these conditions of labor, although in private some men, less hypocritical or more logical than the bulk of reactionists, admit that they consider the society of cultivated men and chattel slaves the best possible for weak human nature. Yet though we can see what has been, we cannot so easily see what is; and I admit that it is especially hard for people in our civilization, with its general freedom from the ruder forms of violence, its orderly routine life, and, in short, all that tremendous organization whose very perfection of continuity prevents us from noticing it, — I say it is hard for people under the quiet order and external stability of modern society to note that much the same thing is going on in the relations of employers to the employed, as went

on under the slave society of Athens, or under the serf-sustained baronage of the thirteenth century.

For I assert that with us, as with the older societies, those who work hardest fare the worst, those who produce the least get the most; while as to the waste of labor that goes on, the waste of times past is as nothing compared with what is wasted to-day.

I must now justify this view of mine, and if possible get you to agree with it, by pointing out to you how society at the present day is constituted.

Now, as always, there are only two things essential to the production of wealth — labor and raw material; every one can labor who is not sick or in nonage; therefore every one, except those, if he can get at raw material, can produce wealth; but without that raw material he cannot produce anything — anything, that is, that man can live upon; and if he does not labor, he must live at the expense of those that do; unless, therefore, every one can get at the raw material and instruments of production, the community in general will be burdened by the expense of so many useless mouths, and the sum of its wealth will be less than it ought to be. But in our civilized society of to-day the raw material and the instruments of production are monopolized by a comparatively small number of persons, who will not allow the general population to use them for production of wealth unless they pay them tribute for doing so; and since they are able to exact this tribute, they themselves are able to live without producing, and consequently are a burden on the community. Nor are these monopolists content with exacting a bare livelihood from the producers, as mere vagabonds and petty thieves do; they are able to get from the producers in all cases an abundant livelihood, including most of the enjoyments and advantages of civilization, and in many cases a position of such power that they are practically independent of the community, and almost out of reach of its laws — although, indeed, the greater part of those laws were made for the purpose of upholding this monopoly — and wherever necessary they do now use the physical force,

which by one means or another they have under their control, for such upholding.

These monopolists, or capitalists, as one may call them broadly (for I will not at present distinguish the land capitalists from the money capitalists), are in much the same position as the slave owners of ancient Greece and Rome, or the serf masters of the thirteenth century; but they have this advantage over them, that though really they sustain their position by mere compulsion, just as the earlier masters did, that compulsion is not visible as the compulsion of the earlier times was, and it is very much their business to prevent it becoming visible, as may be well imagined. But as I am against monopoly and in favor of freedom, I must try to get you to see it; since seeing it is the first step towards feeling it, which in its turn is sure to lead to your refusing to bear it.

I have spoken of the tribute which the capitalists exact as the price of the use of those means of production which ought to be as free to all as the air we breathe is, since they are as necessary to our existence as it is. How do they exact the tribute? They are, to start with, in a good position, you see, because, even without any one's help, they could use the labor power in their own bodies on the raw material they have, and so earn their livelihood; but they are not content with that, as I hinted above — they are not likely to be, because their position, legalized and supported by the whole physical force of the state, enables them "to do better for themselves," as the phrase goes — they can use the labor power of the disinherited, and force them to keep them without working for production. Those disinherited, however, they must keep alive to labor, and they must allow them also opportunity for breeding — these are necessities that pressed equally on the ancient slave owner or the medieval lord of the manor, or, indeed, on the owner of draft cattle; they must at least do for the workers as much as for a machine, supply them with fuel to enable them to work; nor need they do more if they are dealing with men who have no power of resistance. But these machines are human ones, instinct with desires and

passions, and therefore they cannot help trying to better themselves; and they cannot better themselves except at the expense of the masters, because whatever they produce more than the bare necessaries of life the masters will at once take from them if they can; therefore they have always resisted the full exercise of the privilege of the masters, and have tried to raise their standard of livelihood above the mere subsistence limit. Their resistance has taken various forms, from peaceful strikes to open war, but it has always been going on, and the masters, when not driven into a corner, have often yielded to it, although unwillingly enough; but it must be said that mostly the workers have claimed little more than mere slaves would, who might mutiny for a bigger ration. For, in fact, this wage paid by our modern masters is nothing more than the ration of the slave in another form; and when the masters have paid it, they are free to use all the rest that the workers produce, just as the slave owner takes all that the slave produces. Remember at this point, therefore, that everything more than bare subsistence which the workers make to-day, they make by carrying on constant war with their masters. I must add that their success in this war is often more apparent than real, and too often it means little more than shifting the burden of extreme poverty from one group of the workers to another; the unskilled laborers, of whom the supply is unlimited, do not gain by it, and their numbers have a tendency to increase, as the masters, driven to their shifts, use more and more elaborate machines in order to dispense with the skilled labor, and also use the auxiliary labor of women and children, to whom they do *not* pay subsistence wages, thereby keeping down the wages of the head of the family, and depriving him and them of the mutual help and comfort in the household, which would otherwise be gained from them.

Thus, then, the capitalists, by means of their monopoly of the means of production, compel the worker to work for less than his due share of the wealth which he produces, — that is, for less than he produces; he must work, he will die else, and as they are in possession of the raw material, he must agree to the terms

they enforce upon him. This is the "free contract" of which we hear so much, and which, to speak plainly, is a capitalist lie. There is no way out of this freedom save rebellion of some kind or other — strike rebellion, which impoverishes the workers for the time, whether they win the strike or lose it; or the rebellion of open revolt, which will be put down always, until it is organized for a complete change in the basis of society.

Now to show you another link or two of the chain which binds the workers. There is one thing which hampers this constant struggle of the workers towards bettering their condition at the expense of their masters, and that is competition for livelihood amongst them. I have told you that unskilled labor is practically unlimited; and machines, the employment of women and children, long hours of work, and all that cheapening of production so much bepraised now, bring about this state of things, that even in ordinary years there are more hands than there is work to give them. This is the great instrument of compulsion of modern monopoly; people undersell one another in our modern slave market, so that the employers have no need to use any visible instrument of compulsion in driving them towards work; and the invisibility of this whip — the fear of death by starvation — has so muddled people's brains, that you may hear men, otherwise intelligent, *e.g.*, answering objections to the uselessness of some occupation by saying, "But, you see, it gives people employment," although they would be able to see that if three of them had to dig a piece of ground, and one of them knocked off, and was "employed" in throwing chuckie stones into the water, the other two would have to do his share of the work as well as their own.

Another invisible link of the chain is this, that the workman does not really know his own master; the individual employer may be, and often is, on good terms with his men, and really unconscious of the war between them, although he cannot fail to know that if he pays more wages to his men than other employers in the same line of business as himself do, he will be beaten by them. But the workman's real master is not his immediate em-

ployer, but his *class*, which will not allow even the best-intentioned employer to treat his men otherwise than as profit-grinding machines. By his profit, made out of the unpaid labor of his men, the manufacturer must live, unless he gives up his position and learns to work like one of his own men, which, indeed, as a rule he could not do, as he has usually not been taught to do any useful work; therefore, as I have said, he must reduce his wages to the lowest point he can, since it is on the margin between his men's production and their wages that his profit depends; his class, therefore, compels him to compel his workmen to accept as little as possible. But further, the workman is a consumer as well as a producer; and in that character he has not only to pay rent to a landlord (and far heavier proportionately than rich people have to pay), and also a tribute to the middleman who lives without producing and without doing service to the community, by passing money from one pocket to another, but he also has to pay (as consumer) the profits of the other manufacturers who superintend the production of the goods he uses. Again, as a mere member of society, a should-be citizen, he has to pay taxes, and a great deal more than he thinks; he has to pay for wars, past, present, and future, that are never meant to benefit him, but to force markets for his masters, nay, to keep him from rebellion, from taking his own at some date; he has also to pay for the thousand and one idiocies of parliamentary government, and ridiculous monarchical and official state — for the mountain of precedent, nonsense, and chicanery, with *its* set of officials, whose business it is, under the name of law, to prevent justice being done to any one. In short, in one way or another, when he has by dint of constant labor got his wages into his pocket, he has them taken away from him again by various occult methods, till it comes to this at last, that he really works an hour for one third of an hour's pay; while the two thirds go to those who have not produced the wealth which they consume.

Here, then, as to the first and second conditions of a reasonable society: (1) That the labor should be duly apportioned;

(2) that the wealth should be duly apportioned. Our society does not merely fail in them, but positively inverts them; with us, those who consume most produce least, those who produce most consume least.

There yet remains something to be said on the third condition of a fair state of society: that it should look to it that labor be not wasted. How does civilization fare in this respect? I have told you what was the occupation of the ancient slaveholders, set free by slave labor from the necessity of producing — it was fighting with each other for the aggrandizement, in earlier times of their special city, in later of their own selves; similarly, the medieval baron, set free from the necessity of producing by the labor of the serfs who tilled his lands for him, occupied himself with fighting for more serf-tilled land either for himself or for his suzerain. In our own days we see that there is a class freed from the necessity of producing by the tribute paid by the wage earner. What does *our* free class do? how does it occupy the lifelong leisure which it forces toil to yield to it?

Well, it chiefly occupies itself in war, like those earlier non-producing classes, and very busy it is over it. I know, indeed, that there is a certain portion of the dominant class that does not pretend to do anything at all, except perhaps a little amateur reactionary legislation, yet even of that group I have heard that some of them are very busy in their estate offices trying to make the most of their special privilege, the monopoly of the land; and, taking them altogether, they are not a very large class. Of the rest some are busy in taxing us and repressing our liberties directly, as officers in the army and navy, magistrates, judges, barristers, and lawyers; they are the salaried officers on the part of the masters in the great class struggle. Other groups there are, as artists and literary men, doctors, schoolmasters, etc., who occupy a middle position between the producers and the nonproducers; they are doing useful service, and ought to be doing it for the community at large, but practically they are only working for a class, and in their present position are little better than hangers-on of the nonproducing class from whom

they receive a share of their privilege, together with a kind of contemptuous recognition of their position as gentlemen — heaven save the mark! But the great mass of the nonproducing classes are certainly not idle in the ordinary sense of the word; they could not be, for they include men of great energy and force of character, who would, as all reasonable men do, insist on some serious or exciting occupation; and I say once again their occupation is war, though it is "writ large," and called competition. They are, it is true, called organizers of labor; and sometimes they do organize it, but when they do they expect an extra reward for so doing outside their special privilege. A great many of them, though they are engaged in the war, sit at home at ease, and let their generals, their salaried managers to wit, wage it for them, — I am meaning here shareholders, or sleeping partners, — but whenever they are active in business they are really engaged in organizing the war with their competitors, the capitalists in the same line of business as themselves; and if they are to be successful in that war they must not be sparing of destruction, either of their own or of other people's goods; nay, they not unseldom are prepared to further the war of sudden, as opposed to that of lingering, death, and of late years they have involved pretty nearly the whole of Europe in attacks on barbarian or savage peoples, which are only distinguishable from sheer piracy by their being carried on by nations instead of individuals. But all that is only by the way; it is the ordinary and necessary outcome of their operations that there should be periodical slackness of trade following on times of inflation, from the fact that every one tries to get as much as he can of the market to himself at the expense of every one else, so that sooner or later the market is sure to be overstocked, so that wares are sold sometimes at less than the cost of production, which means that so much labor has been wasted on them by misdirection. Nor is that all; for they are obliged to keep an army of clerks and such-like people, who are not necessary either for the production of goods or their distribution, but are employed in safeguarding their master's interests against their master's com-

petitors. The waste is further increased by the necessity of these organizers of the commercial war for playing on the ignorance and gullibility of the customers by two processes, which in their perfection are specialties of the present century, and even, it may be said, of this latter half of it — to wit, adulteration and puffery. It would be hard to say how much ingenuity and painstaking have been wasted on these incidents in the war of commerce, and I am wholly unable to get any statistics of them; but we all know that an enormous amount of labor is spent on them, which is at the very best as much wasted as if those engaged on it were employed in digging a hole and filling it up again.

But, further, there is yet another source of waste involved in our present society. The grossly unequal distribution of wealth forces the rich to get rid of their surplus money by means of various forms of folly and luxury, which means further waste of labor. Do not think I am advocating asceticism. I wish us all to make the utmost of what we can obtain from nature to make us happier and more contented while we live; but, apart from reasonable comfort and real refinement, there is, as I am sure no one can deny, a vast amount of sham wealth and sham service created by our miserable system of rich and poor, which makes no human being the happier on the one hand, while on the other it withdraws vast numbers of workers from the production of real utilities, and so casts a heavy additional burden of labor on those who are producing them. I have been speaking hitherto of a producing and a nonproducing class, but I have been quite conscious all the time that though the first class produces whatever wealth is created, a very great many of them are prevented from producing wealth at all, are being set to nothing better than turning a wheel that grinds nothing — save their own lives. Nay, worse than nothing. I hold that this sham wealth is not merely a negative evil (I mean in itself), but a positive one. It seems to me that the refined society of to-day is distinguished from all others by a kind of gloomy cowardice — a stolid but timorous incapacity of enjoyment.

He who runs may read the record of the unhappy rich not less than that of the unhappy poor, in the futility of their amusements and the degradation of their art and literature.

Well, then, the third condition of a reasonable society is violated by our present so-called society; the tremendous activity, energy, and invention of modern times is to a great extent wasted; the monopolists force the workers to waste a great part of their labor power, while they waste almost the whole of theirs. Our society, therefore, does not fulfill the true functions of society. Now, the constitution of all society requires that each individual member of it should yield up a part of his liberty in return for the advantages of mutual help and defense; yet at bottom that surrender should be part of the liberty itself; it should be voluntary in essence. But if society does not fulfill its duties towards the individual, it wrongs him; and no man voluntarily submits to wrong — nay, no man ought to. The society, therefore, that has violated the essential conditions of its existence must be sustained by *mere* brute force; and that is the case of our modern society, no less than that of the ancient slaveholding and the medieval serf-holding societies. As a practical deduction, I ask you to agree with me that such a society should be changed from its base up, if it be possible. And, further, I must ask how, by what, and by whom, such a revolution can be accomplished? But before I set myself to deal with these questions, I will ask you to believe that, though I have tried to argue the matter on first principles, I do not approach the subject from a pedantic point of view. If I could believe that, however wrong it may be in theory, our present system works well in practice, I should be silenced. If I thought that its wrongs and anomalies were so capable of palliation, that people generally were not only contented but were capable of developing their human faculties duly under it, and that we were on the road to progress without a great change, I for one would not ask any one to meddle with it. But I do not believe that, nor do I know of any thoughtful person that does. In thoughtful persons I can see but two attitudes; on the one hand the

despair of pessimism, which I admit is common, and on the other a desire and hope of change. Indeed, in a year like the present, when one hears on all sides and from all classes of what people call depression of trade, which, as we too well know, means misery at least as great as that which a big war bears with it; and when on all sides there is ominous grumbling of the coming storm, the workers unable to bear the extra burden laid upon them by the "bad times," — in such a year there is, I do not say no hope, but at least no hope except in those changes, the tokens of which are all around us.

Therefore, again I ask how, or by what, or by whom, the necessary revolution can be brought about? What I have been saying hitherto has been intended to show you that there has always been a great class struggle going on, which is still sustained by our class of monopoly and our class of disinheritance. It is true that in former times no sooner was one form of that class struggle over than another took its place; but in our days it has become much simplified, and has cleared itself by progress through its various stages of mere accidental circumstances. The struggle for political equality has come to an end, or nearly so; all men are (by a fiction, it is true) declared to be equal before the law, and compulsion to labor for another's benefit has taken the simple form of the power of the possessor of money, who is all-powerful; therefore if, as we socialists believe, it is certain that the class struggle must one day come to an end, we are so much nearer to that end by the passing through of some of its necessary stages; history never returns on itself.

Now, you must not suppose, therefore, that the revolutionary struggle of to-day, though it may be accompanied (and necessarily) by violent insurrection, is paralleled by the insurrections of past times. A rising of the slaves of the ancient period, or of the serfs of the medieval times, could not have been permanently successful, because the time was not ripe for such success, because the growth of the new order of things was not sufficiently developed. It is indeed a terrible thought that, although the burden of injustice and suffering was almost too heavy to be

borne in such insurrectionary times, and although all popular uprisings have right on their side, they could not be successful at the time, because there was nothing to put in the place of the unjust system against which men were revolting. And yet it is true, and it explains the fact that the class antagonism is generally more felt when the oppressed class is bettering its condition than when it is at its worst. The consciousness of oppression then takes the form of hope, and leads to action, and is, indeed, the token of the gradual formation of a new order of things underneath the old decaying order.

Most thoughtful people are conscious of the fact that the tendency of the times is to make the labor classes the great power of the epoch, in the teeth of the other fact that labor is at least as directly under the domination of a privileged class as ever it was. Now these two facts taken together: the obvious uprising of the workers in the scale, and their being face to face with a class that lives by exploiting their labor, — these two facts seem to us socialists to show that one of these classes must give way, and that this giving way must mean that one of those classes must be absorbed in the other, and so the class war be ended. If that position be accepted, it is clear that the class that must come alive out of the struggle must be the producing class, the useful class; therefore the socialist's view of the labor question is that a new society is in course of development from the working classes — the producing classes, more properly — and that the other classes which now live on their labor will melt into that class. The result of that will be, that, so far as society has any conscious organization, it will be an instrument for the arrangement of labor so as to produce wealth from natural material, and to distribute the wealth when produced without waste of labor; that is to say, it will satisfy those ideal conditions of its reason for existence which I began by putting before you.

I told you that I was not prepared to give you any details of the arrangement of a new state of society; but I am prepared to state the principles on which it would be founded, and the recognition of which would make it easy for serious men to deal

with the details of arrangement. Socialism asserts that every one should have free access to the means of production of wealth — the raw material and the stored-up force produced by labor; in other words, the land, plant, and stock of the community, which are now monopolized by certain privileged persons, who force others to pay for their use. This claim is founded on the principle which lies at the bottom of socialism, that the right to the possession of wealth is conferred by the possessor having worked towards its production, and being able to use it for the satisfaction of his personal needs. The recognition of this right will be enough to guard against mere confusion and violence. The claim to property on any other grounds must lead to what is in plain terms robbery; which will be no less robbery because it is organized by a sham society, and must be no less supported by violence because it is carried on under the sanction of the law.

Let me put this with somewhat more of detail. No man has made the land of the country, nor can he use more than a small portion of it for his personal needs; no man has made more than a small portion of its fertility, nor can use personally more than a small part of the results of the labor of countless persons, living and dead, which has gone to produce that fertility. No man can build a factory with his own hands, or make the machinery in it, nor can he use it, except in combination with others. He may call it his, but he cannot make any use of it as his alone, unless he is able to compel other people to use it for his benefit; this he does not do personally, but our sham society has so organized itself that by its means he can compel this unpaid service from others. The magistrate, the judge, the policeman, and the soldier, are the sword and pistol of this modern highwayman, and I may add that he is also furnished with what he can use as a mask under the name of morals and religion.

Now, if these means of production — the land, plant, and stock — were really used for their primary uses, and not as means for extracting unpaid labor from others, they would be used by men working in combination with each other, each of whom would receive his due share of the results of that combined

labor; the only difficulty would then be what would be his due share, because it must be admitted on all hands that it is impossible to know how much each individual has contributed towards the production of a piece of coöperative labor; but the principle once granted that each man should have his due share of what he has created by his labor, the solution of the difficulty would be attempted, nay, is now hypothetically attempted, in various ways, in two ways mainly. One view is that the state — that is, society organized for the production and distribution of wealth — would hold all the means of the production of wealth in its hands, allowing the use of them to whomsoever it thought could use them, charging rent, perhaps, for their use, but which rent would be used again only for the benefit of the whole community, and therefore would return to the worker in another form. It would also take on itself the organization of labor in detail, arranging the how, when, and where, for the benefit of the public, — doing all this, one must hope, with as little centralization as possible; in short, the state, according to this view, would be the only employer of labor. No individual would be able to employ a workman to work for him at a profit, *i.e.*, to work for less than the value of his labor (roughly estimated), because the state would pay him the full value of it; nor could any man let land or machinery at a profit, because the state would let it without the profit. It is clear that if this could be carried out, no one could live without working. When a man had spent the wealth he had earned personally, he would have to work for more, as there would be no tribute coming to him from the labor of past generations; on these terms he could not accumulate wealth, nor would he desire to, for he could do nothing with it except satisfy his personal needs with it, whereas at present he can turn the superfluity of his wealth into capital, *i.e.*, wealth used for the extraction of profit. Thus society would be changed. Every one would have to work for his livelihood, and everybody would be able to do so; whereas at present there are people who refuse to work for their livelihood, and forbid others to do so. Labor would not be wasted, as there would be no competing employ-

ers gambling in the market, and using the real producer and the consumer as their milch cows. The limit of price would be the cost of production, so that buying and selling would be simply the exchange of equivalent values, and there would be no loss on either side in the transaction. Thus there would be a society in which every one would have an equal chance for well-doing, for, as a matter of course, arrangements would be made for the sustaining of people in their nonage, for keeping them in comfort if they were physically incapacitated from working, and also for educating every one according to his capacities. This would at the least be a society which would try to perform those functions of seeing that every one did his due share of work and no more, and had his due share of wealth and no less, and that no labor was wasted, which I have said were the real functions of a true society.

But there is another view of the solution of the difficulty as to what constitutes the due share of the wealth created by labor. Those who take it say, since it is not really possible to find out what proportion of combined labor each man contributes, why profess to try to do so? In a properly ordered community all work that is done is necessary on the one hand, and on the other there would be plenty of wealth in such a community to satisfy all reasonable needs. The community holds all wealth in common, but has the same right to holding wealth that the individual has, — namely, the fact that it has created it and uses it; but as a community it can only use wealth by satisfying with it the needs of every one of its members — it is not a true community if it does less than this — but their needs are not necessarily determined by the kind or amount of work which each man does, though, of course, when they are, that must be taken into account. To say the least of it, men's needs are much more equal than their mental or bodily capacities are; their ordinary needs, granting similar conditions of climate and the like, are pretty much the same, and could, as above said, be easily satisfied. As for special needs for wealth of a more special kind, reasonable men would be contented to sacrifice the thing which they needed

less for that which they needed more; and for the rest, the varieties of temperament would get over the difficulties of this sort. As to the incentives to work, it must be remembered that even in our own sham society most men are not disinclined to work, so only that their work is not that which they are compelled to do; and the higher and more intellectual the work is, the more men are resolved to do it, even in spite of obstacles. In fact, the ideas on the subject of the reward of labor in the future are founded on its position in the present. Life is such a terrible struggle for the majority, that we are all apt to think that a specially gifted person should be endowed with more of that which we are all compelled to struggle for — money, to wit — and to value his services simply by that standard. But in a state of society in which all were well-to-do, how could you reward extra services to the community? Give your good worker immunity from work? The question carries with it the condemnation of the idea, and, moreover, that will be the last thing he will thank you for. Provide for his children? The fact that they are human beings with a capacity for work is enough; they are provided for in being members of a community which will see that they neither lack work nor wealth. Give him more wealth? Nay; what for? What can he do with more than he can use? He cannot eat three dinners a day, or sleep in four beds. Give him domination over other men? Nay, if he be more excellent than they are in any art, he must *influence* them for his good and theirs, if they are worth anything; but if you make him their arbitrary master, he will govern them, but he will not influence them; he and they will be enemies, and harm each other mutually. One reward you can give him, that is, opportunity for developing his special capacity, but that you will do for everybody and not the excellent only. Indeed, I suppose he will not, if he be excellent, lack the admiration — or perhaps it is better to say the affection — of his fellow men, and he will be all the more likely to get that when the relations between him and them are no longer clouded by the fatal gift of mastership.

In short, in a duly ordered community, everybody would do

what he could do best, and therefore easiest, and with most pleasure. He who could do the higher work would do it as easily as the man whose capacity was less would do the lower work; there would be no more wear and tear to him in it, or if there were, it would mean simply that his needs were greater, and would have to be considered accordingly.

Moreover, those who see this view of the new society believe that decentralization in it would have to be complete. The political unit with them is not a nation, but a commune; the whole of reasonable society would be a great federation of such communes, federated for definite purposes of the organization of livelihood and exchange. For a mere nation is the historical deduction from the ancient tribal family, in which there was peace between the individuals composing it, and war with the rest of the world. A nation is a body of people kept together for purposes of rivalry and war with other similar bodies, and when competition shall have given place to combination the function of the nation will be gone.

I will recapitulate, then, the two views taken among socialists as to the future of society. According to the first, the state — that is, the nation organized for unwasteful production and exchange of wealth — will be the sole possessor of the national plant and stock, the sole employer of labor, which she will so regulate in the general interest that no man will ever need to fear lack of employment and due earnings therefrom. Everybody will have an equal chance of livelihood, and, except as a rare disease, there would be no hoarding of money or other wealth. This view points to an attempt to give everybody the full worth of the productive work done by him, after having insured the necessary preliminary that he shall always be free to work.

According to the other view, the centralized nation would give place to a federation of communities who would hold all wealth in common, and would use that wealth for satisfying the needs of each member, only exacting from each that he should do his best according to his capacity towards the production of the common wealth. Of course, it is to be understood that each

member is absolutely free to use his share of wealth as he pleases without interference from any, so long as he really uses it; that is, does not turn it into an instrument for the oppression of others. This view intends complete equality of condition for every one, though life would be, as always, varied by the differences of capacity and disposition; and emulation in working for the common good would supply the place of competition as an incentive.

These two views of the future of society are sometimes opposed to each other as socialism and communism; but to my mind the latter is simply the necessary development of the former, which implies a transition period, during which people would be getting rid of the habits of mind bred by the long ages of tyranny and commercial competition, and be learning that it is to the interest of each that all should thrive.

When men had lost the fear of each other engendered by our system of artificial famine, they would feel that the best way of avoiding the waste of labor would be to allow every man to take what he needed from the common store, since he would have no temptation or opportunity of doing anything with a greater portion than he really needed for his personal use. Thus would be minimized the danger of the community falling into bureaucracy, the multiplication of boards and offices, and all the paraphernalia of official authority, which is after all a burden, even when it is exercised by the delegation of the whole people and in accordance with their wishes.

Thus I have laid before you, necessarily briefly, a socialist's view of the present condition of labor, and its hopes for the future. If the indictment against the present society seems to you to be of undue proportions compared with the view of that which is to come, I must again remind you that we socialists never dream of building up by our own efforts in one generation a society altogether new. All I have been attacking has been the exercise of arbitrary authority for the supposed benefit of a privileged class. When we have got rid of that authority and are free once more, we ourselves shall do whatever may be necessary in organizing the real society which even now exists under

the authority which usurps that title. That true society of loved and lover, parent and child, friend and friend, the society of well-wishers, of reasonable people conscious of the aspirations of humanity and the duties we owe to it through one another, — this society, I say, is held together and exists by his own inherent right and reason, in spite of what is usually thought to be the cement of society — arbitrary authority to wit — that is to say, the expression of brute force under the influence of unreasoning habit. Unhappily though society exists, it is in an enslaved and miserable condition, because that same arbitrary authority says to us practically: "You may be happy if you can afford it, but unless you have a certain amount of money, you shall not be allowed the exercise of the social virtues; sentiment, affection, good manners, intelligence even, to you shall be mere words; you shall be less than men, because you are needed as machines to grind on in a system which has come upon us, we scarce know how, and which compels us, as well as you." This is the real, continuously repeated proclamation of law and order to the most part of men who are under the burden of that hierarchy of compulsion which governs us under the usurped and false title of society, and which all true socialists or supporters of real society are bound to do their best to get rid of, so as to leave us free to realize to the full that true society which means well-being and well-doing for one and all.

XVI

EDUCATION AND THE SOCIALIST MOVEMENT[1]

JOHN BATES CLARK

[John Bates Clark (1847–), since 1895 professor of political economy in Columbia University, occupies perhaps the foremost position among English-speaking economists of the present time. Among his books and monographs should be mentioned his epoch-making work on the *Distribution of Wealth* (1899), which ranks among the ablest contributions to economic philosophy since the days of John Stuart Mill.

While always a theoretician, Professor Clark has shown an active interest in many current practical problems; this is exemplified in the following essay on *Education and the Socialist Movement*, a clear-cut presentation of the practical objections to socialism as they appear to the scientifically trained mind. Among the many analyses and refutations of the claims of the socialistic state, this essay is distinguished for its lucid argument, its moderate tone, and for the authority with which its author may speak on a question that must still be argued from theory. The optimistic attitude, with which the essay closes, toward the tendencies of the present industrial system is characteristic of the author's position on economic questions.]

IN a noteworthy address delivered at Princeton University, President Cleveland expressed the hope that our higher institutions of learning would range themselves like a wall barring the progress of revolutionary doctrines. If one may judge by appearances, this hope has not been realized. There may be a smaller percentage of educated persons than of uneducated ones in the ranks of radical socialism. Those ranks are most readily recruited from the body of ill-paid workingmen; but there are enough highly educated persons in them to prove that socialism and the higher culture are not incompatible; and a question that

[1] Reprinted by permission from the *Atlantic Monthly*, October, 1906.

is well worth asking and, if possible, answering, is, What is likely to be the permanent attitude of a scientific mind toward the claims of thoroughgoing socialism? Will it be generally conservative or the opposite? Will there be an alliance between intelligence and discontented labor — the kind of union that was once cynically called a "coalition of universities and slums"? If so, it will make a formidable party.

It is clear, in the first place, that the scientific habit of thought makes one hospitable to new ideas. A man who cultivates that habit is open to conviction where an ignorant person is not so. He is accustomed to pursue the truth and let the quest lead him where it will. He examines evidence which appears to have force, even although the conclusion to which it leads may be new and unpleasant.

Now, at the very outset of any inquiry about socialism, there appear certain undisputed facts which create a *prima facie* case in its favor; and the first of them is the beauty of the ideal which it presents: humanity as one family; men working together as brethren, and enjoying, share and share alike, the fruits of their labor — what could be more attractive? There will be an abundance for every one, and as much for the weak as for the strong; and there will be no cause for envy and repining. There will be fraternity insured by the absence of subjects of contention. We shall love our brethren because we shall have no great cause to hate them; such is the picture. We raise just here no question as to the possibility of realizing it. It is a *promised* land and not a real one that we are talking about, and for the moment we have given to the socialists *carte blanche* to do the promising. The picture that they hold up before us certainly has traits of beauty. It is good and pleasant for brethren to dwell together in unity *and in abundance.*

Again, there is no denying the imperfections of the present system both on its ethical and on its economic side. There is enormous inequality of conditions — want at one extreme and inordinate wealth at another. Many a workingman and his family are a prey to irregular employment and continual anxiety.

For such persons what would not a leveling out of inequalities do? To a single capitalist personally a billion dollars would mean palaces, yachts, and a regiment of retainers. It would mean a redoubling of his present profusion of costly decorations, clothing, and furnishings, and it would mean the exhausting of ingenuity in inventing pleasures, all of which, by a law of human nature, would pall on the man from mere abundance. What would the billionaire lose by parting with ninety-nine one hundredths of his wealth? With the modest ten millions that would be left he could have every pleasure and advantage that money ought to purchase. What would not the sum he would surrender do for a hundred thousand laborers and their families? It would provide comforts for something like half a million persons. It would give them means of culture and of health, banish the hunger specter, and cause them to live in mental security and peace. In short, at the cost of practically nothing for one man, the redistribution we have imagined would translate half a million persons to a comfortable and hopeful level of life.

Again, the growth of those corporations to which we give the name of "trusts" has lessened the force of one stock argument against socialism, and added a wholly new argument in its favor. The difficulty of managing colossal enterprises formerly stood in many minds as the chief consideration against nationalization of capital and industry. What man, or what body of men, can possibly be wise and skillful enough to handle such operations? They are now, in some instances, in process of handling them, and those who wish to change the present order tell us that all we have to do is to transfer the ownership of them to the state, and let them continue working as they do at present. We have found men wise enough to manage the trusts, and probably, in most cases, they are honest enough to do so in the interest of the stockholders. On the question of honesty the socialist has the advantage in the argument, for he will tell us that with the private ownership of capital made impossible by law, the temptation to dishonesty is removed. If the socialistic state could be

warranted free from "graft," this would constitute the largest single argument in its favor.

It is, indeed, not the same thing to manage a myriad of industries as to manage a single one, because certain nice adjustments have to be made between the several industries, and we shall see what this difficulty signifies; but as we are looking only at *prima facie* claims, we will give to the argument from the existence of trusts all the force that belongs to it.

As the difficulty of nationalizing production has been reduced, the need of it has been increased, for the trusts are becoming partial monopolies, able to raise prices, reduce wages, cheapen raw materials, and make themselves, if they shall go much farther in this line, altogether intolerable. Indeed, the single fact of the presence of private monopoly, and the lack of any obvious and sure plan of successfully dealing with it, has been enough to convert a multitude of intelligent men to the socialistic view.

Here, then, is a list of arguments making an effective case for socialism: the beauty of its ideal, the glaring inequalities of the present system, the reduction of the difficulty of managing great industries through public officials, the growing evils of private monopoly, and the preference for public monopoly as a mode of escape. They captivate a multitude of persons, and it is time carefully to weigh them. It is necessary to decide whether the promises of the socialistic state are to be trusted. Would the ideal materialize? Is it a substantial thing, within reachable distance, or is it a city in the clouds? If it is not wholly away from the earth, is it on the delectable mountains of a remote millennium? Is it as wholly desirable as it at first appears?

There are some considerations which any educated mind should be able to grasp, which reduce the attractiveness of the socialistic ideal itself. Shall we transform humanity into a great band of brethren by abolishing private property? Differences of wealth which now excite envy would, of course, be removed. The temptation to covetousness would be reduced, since there would not be much to covet. There would be nothing a man could do with plunder — unless he could emigrate with it. Would "hatred

and all uncharitableness" be therefore completely absent, or would they be present in a form that would still make trouble?

Even though there would be no differences of possessions between man and man, there would be great differences in the desirability of different kinds of labor. Some work is safe and some is dangerous. Some is agreeable and some is disagreeable. The artist, the author, the scientist, the explorer, and the inventor take pleasure in their work; and that is not often to be said of the stoker, the grinder of tools, the coal miner, or the worker in factories where explosives or poisons are made. It is not to be said of any one who has to undergo exhausting labor for long hours. In industries managed by the state there would be no practicable way of avoiding the necessity of assigning men to disagreeable, arduous, unhealthful, or dangerous employments. Selections of men for such fields of labor would in some way have to be made, and those selected for the undesirable tasks would have to be held to them by public authority. Well would it be if the men so consigned, looking upon the more fortunate workers, were not good material for an army of discontent. Well would it be if their discontent were not turned into suspicion of their rulers and charges of favoritism in personal treatment. There would not be, as now, an abstraction called a "system," on which, as upon the camel's back, it would be possible to load the prevalent evils. Strong in the affections of the people must be the *personnel* of a government that could survive the discontent which necessary inequalities of treatment would excite. Would the government be likely to be thus strong in popular affection? We may judge as to this if we look at one further peculiarity of it.

The pursuit of wealth now furnishes the outlet for the overmastering ambition of many persons. In the new state, the desire to rise in the world would have only one main outlet, namely, politics. The work of governing the country, and that of managing its industries, would be merged in one great official body. The contrast between rulers and ruled would be enor-

mously heightened by this concentration of power in the hands of the rulers, and by the further fact that the ruled would never be able, by means of wealth, to acquire an offset for the advantages of officeholding. The desire for public position must therefore be intensified.

There would be some prizes to be gained, in a worthy way, by other kinds of service, such as authorship, invention, and discovery; but the prizes which would appeal to most men would be those of officialdom. Is it in reason to suppose that the method of securing the offices would then be better than it is at present? Would a man, under the new *régime*, work quietly at his task in the shoe shop, the bakery, or the mine, waiting for the office to which he aspired to seek him out, or would he try to make terms with other men for mutual assistance in the quest of office? Would rings be less general than they are now? Could there fail to be bosses and political machines? Would the Tammanys of the new order, then, be an improvement on the Tammanys of the old order? To the sober second thought which mental training ought to favor, it appears that the claim of the socialistic state to a peculiar moral excellence brought about by its equality of possessions needs a very thorough sifting.

Without making any dogmatic assertions, we may say that there would certainly have to be machines of some sort for pushing men into public offices, and that these would have very sinister possibilities. They would be opposed by counter machines, made up of men out of office and anxious to get in. "I am able to see," said Marshal MacMahon, when nearing the end of his brief presidency of the French Republic, "that there are two classes of men — those who command and those who must obey." If the demarcation were as sharp as that in actual society, and if the great prizes in life were political, brief indeed might be the tenure of place by any one party, and revolutions of more than South American frequency might be the normal state of society. One may look at the ideal which collectivism [1] presents, with no

[1] The economic idea underlying socialism: ownership by the community of all the means of production. — *Editors.*

thought of such dangers; but it is the part of intelligence at least to take account of them.

Besides the fact that some would be in office and others out, and that some would be in easy and desirable trades and others in undesirable ones, there would be the further fact that some would live in the city and some in the country, and that the mere localizing of occupations would afford difficulty for the ruling class and be a further cause of possible discontent. But a much more serious test of the capacity of the government would have to be made in another way. Very nice adjustments would have to be made between agriculture on one hand, and manufactures and commerce on the other; and further adjustments would have to be made between the different branches of each generic division. All this would be done, not automatically as at present, by the action of demand and supply in a market, but by the voluntary acts of officials. Here is the field in which the wisdom of officials would be overtaxed. They might manage the mills of the steel trust, but it would trouble them to say how many men should be employed in that business and how many in every other, and of the men in that generic branch, how many should work in Pittsburgh and how many in the mines of Michigan and Minnesota.

A fine economic classic is the passage in which Bishop Whately describes the difficulty of provisioning the City of London by the action of an official commissariat, and contrasts it with the perfection with which this is now done without such official control. Individuals, each of whom seeks only to promote his own interest, work in harmony, prevent waste, and secure the city against a lack of any needed element. Far greater would be the contrast between satisfying by public action every want of a nation, and doing this by the present automatic process; and yet crude thought even calls competition "chaotic," and calls on the state to substitute an orderly process. Into that particular error discriminating thought will not readily fall.

Difficulties which a discerning eye perceives, and an undiscerning one neglects, thus affect the conclusion that is reached as to

whether a socialistic plan of industry could or could not be made to work. Ignorance does not so much as encounter the real difficulties in the case, but lightly assumes that the plan would work, and is eager to try it. I am not, here and now, claiming that the difficulties cited positively prove that the scheme would not work. Granting now, for the sake of further argument, that it could be made to work — that on the political side it would proceed smoothly and peaceably, and that on the economic side it would run on no fatal rocks — would it give a material result worth having?

Here is a chance for a wider range of difference between the conclusions of different minds. There are three specific consequences of the socialistic plan of industry, each of which is at least possible; and a prospect that all of them would occur together would suffice to deter practically every one from adhering to this plan. Estimates of the probability of these evils will vary, but that each one of the three is possible, is not to be denied. Of these results, the first is, on the whole, the gravest. It is the check that socialism might impose on technical progress. At present we see a bewildering succession of inventions transforming the industries of the world. Machine after machine appears in rapid succession, each displacing its predecessor, working for a time and giving way to still better devices. The power of man over nature increases with amazing rapidity. Even in the relatively simple operations of agriculture, the reaper, the thresher, the seeder, and the gang plow enable a man today to do as much work as could a score of men in the colonial period of American history. In manufacturing, the gain is greater; and in transportation, it is indefinitely greater. The progress goes on without cessation, since the thing which guarantees it is the impulse of self-preservation. An employer *must* improve his mechanism if his rivals do so. He must now and then get ahead of his rivals if he is to make any profit. Conservatism which adheres to the old is self-destruction, and a certain audacity affords the nearest approach to safety. From this it comes about, first, that forward movements are made

daily and hourly in some part of the field; and, secondly, that with every forward movement the whole procession must move on to catch up with its new leader.

Now, it is possible to suppose that under socialism an altruistic motive may lead men to make inventions and discoveries. They may work for the good of humanity. The desire for distinction may also impel them to such labors, and non-pecuniary rewards offered by the state may second this desire. The inventive impulse may act even where no reward is in view. Men will differ greatly in their estimates of the amount of progress that can be gained in this way; but the thing that may be affirmed without danger of denial is, that the competitive race absolutely compels progress at a rate that is inspiringly rapid, and that there is much uncertainty as to the amount of progress that would be secured where other motives are relied on. Officialdom is generally unfavorable to the adoption of improved devices, even when they are presented; its boards have frequently been the graveyards of inventions, and there is no blinking the uncertainty as to whether a satisfactory rate of improvement could be obtained where the methods of production should be at the mercy of such boards. The keener the intelligence, the more clearly it will perceive the importance of progress, and the immeasurable evil that would follow any check upon it; the more also it will dread every cause of uncertainty as to the maintenance of the present rate of improvement.

An important fact concerning competitive industry is the ease with which new technical methods translate themselves, first into temporary profits for employers, and then into abiding returns for other classes. The man who introduces an efficient machine makes money by the means until his competitors get a similar appliance, after which the profit vanishes. The product of the machine still enriches society, by diffusing itself among the people in the shape of lower prices of goods. The profit from any one such device is bound to be temporary, while the gain that comes from cheap goods is permanent. If we watch some one industry, like shoemaking or cotton spinning, we find profits

appearing and vanishing, and appearing again and vanishing again. If we include in our vision the system as a whole, we find them appearing now in one branch of industry, now in another, and now in still another, shifting forever their places in the system, but always present somewhere. Steel, cotton, wool, machinery, or flour, takes its turn in affording gains to its producer, and these gains constitute the largest source of additions to capital. These natural profits in themselves burden nobody. Not only is there in them no trace of exploitation of labor, but from the very start the influence that yields the profit improves the condition of labor, and in the end labor, as the greatest of all consumers, gets the major benefit.[1]

Now, an important fact is that such profits based on improved technical processes naturally, and almost necessarily, add themselves to capital. The employer wishes to enlarge his business while the profits last — "to make hay while the sun shines." He has no disposition to spend the income which he knows will be transient, but has every disposition to enlarge the scale of his operations and provide a permanent income for the future. Easily, naturally, painlessly, the great accretions of capital come; mainly by advances in technical operations of production.

In the socialistic state all the incomes of the year would be pooled. They would make a composite sum out of which every one's stipend would have to be taken. There would be no special and personal profit for any one. The gains that come from improved technique would not be distinguishable from those that come from other sources. Every one would be a laborer, and every one would get his daily or weekly stipend; and if capital had to be increased, — if the needs of an enlarging business had to be provided for at all, — it could only be done by withholding some part of that stipend. It would be an unwelcome way of making accumulations. It would mean the conscious acceptance

[1] A fuller treatment of this subject would take account of the incidental evils which inventions often cause, by forcing some persons to change their employments, and would show that these evils were once great but are now smaller and destined to diminish.

by the entire working class of a smaller income than might otherwise be had. If one has heroic confidence in the far-seeing quality and in the generous purpose of the working class, he may perhaps think that it will reconcile itself to this painful self-denial for the benefit of the future; but it is clear that there are large probabilities in the other direction. There is danger that capital would not be thus saved in sufficient quantity, and that, if it were not so, no power on earth could prevent the earning capacity of labor from suffering in consequence. From mere dearth of capital the socialistic state, though it were more progressive than we think, would be in danger of becoming poorer and poorer.

There is another fact concerning the present system which a brief study of economics brings to every one's attention, and which has a very close connection with the outlook for the future of laborers. It is the growth of population. The Malthusian doctrine of population maintains that increased wages are followed by a quick increase in the number of the working people, and that this brings the wages down to their former level.[1] On its face it appears to say that there is not much hope of permanent gains for labor, and it was this teaching which was chiefly responsible for giving to political economy the nickname of the "dismal science." It is true that the teachings of Malthus contain a proviso whereby it is not impossible under a certain condition that the wages of labor may permanently increase. Something may raise the standard of living more or less permanently, and this fact may nullify the tendency of population to increase unduly. Modern teachings make the utmost of this saving proviso, and show that standards have in fact risen, that families of the well-to-do are smaller than those of empty-handed laborers, and that, with advancing wages based on enlarged producing power, the workers may not see their gains slipping from their hands in the old Malthusian fashion, but may hold them more and more firmly. Progress may cause further progress.

Now, socialism proposes to place families in a condition resem-

[1] T. R. Malthus, *Essay on Population*, 1798. — *Editors.*

bling that in which, in American history, the natural growth has been most rapid, the condition, namely, in which children are maintained without cost to parents, as they were when they lived on farms and were set working at an early age. If this should mean that the old Malthusian law would operate in the socialistic state, the experiment would be hopelessly wrecked. If the state provides for children from their birth to the end of their lives, the particular influence that puts a check on the size of families will be absent. One may not affirm with positiveness that the worst form of Malthusianism would actually operate under socialism; nothing but experiment will give certain knowledge in this particular; but what a little discernment makes perfectly certain is, that there would be danger of this.

Quite apart, then, from political uncertainties, three coördinate influences on the purely economic side must be taken full account of by anybody who would intelligently advocate the nationalizing of production. There are: first, the probable check on technical progress; secondly, the difficulty encountered in enlarging capital; and thirdly, the possible impetus to the growth of population. If the first two influences were to work without the other, socialism would mean that we should all slowly grow poor together; and if the third influence were also to operate, we should grow poor very rapidly.

We have not proved, as if by incontestable mathematics, that socialism is not practicable and not desirable. We have cited facts which lead a majority of persons to believe this. The unfavorable possibilities of socialism bulk large in an intelligent view, but positive proof as to what would happen in such a state can come only through actual experience. Some country must turn itself into an experimental laboratory for testing the collective mode of production and distribution, before the world can definitely know what that process would involve. In advance of this test, there is a line of inquiry which yields a more assured conclusion than can any estimate of a state which, as yet, is imaginary. It is the study of the present industrial system and its tendencies. When we guess that the collective management

of all production by the state would fail to work, and would lead to poverty even if it succeeded in working, we are met by those who guess it would succeed and lead to general abundance; and they will certainly claim that their guesses are worth as much as ours. As to the tendencies of the present state, and the outlook they afford, it is possible to know much more. The testimony of facts is positive as to some things, and very convincing as to others.

No one is disposed to deny the dazzling series of technical improvements which the rivalries of the present day insure. There is not only progress, but a law of progress; not only the productive power that we are gaining, but the force that, if allowed to work, will forever compel us to gain it. There is no assignable limit to the power that man will hereafter acquire over nature. Again and again, in the coming years and centuries, will the wand of inventive genius smite the rock and cause new streams of wealth to gush forth; and, as already said, much of this new wealth will take naturally and easily the form of capital. It will multiply and improve the tools that labor works with; and a fact which science proves is that the laborer, quite apart from the capitalist, thrives by the operation. He gets higher and higher pay as his method of laboring becomes more fruitful. It is as though he were personally bringing for his own use new streams from the rock; and even though this worker were striking a landlord's rock with a capitalist's hammer, the new stream could not fail to come largely to himself.

Mere labor will have increasing power to create wealth, *and to get wealth*, as its methods improve and its tools more and more abound. This will not transform the workingman's whole life in a day — it will not instantly place him where the rubbing of a lamp will make genii his servants, but it will give him to-morrow more than he gets to-day, and the day after to-morrow still more. It will enable his own efforts to raise him surely, steadily, inspiringly, toward the condition of which he dreams. It will throw sunshine on the future hills — substantial and reachable hills, though less brilliant than pictured mountains of cloudland.

Well within the possibilities of a generation or two is the gain that will make the worker comfortable and care free. Like the village blacksmith, he may "look the whole world in the face" with independence, but with no latent enmity. Manly self-assertion there may be, with no sense of injury. The well-paid laborer may stand before the rich without envy, as the rich will stand before him without pity or condescension. It may be that the condition described by Edward Atkinson, in which it "will not pay to be rich" because of the cares which wealth must bring, may never arrive. It will always be better to have something than to have nothing; but it may, at some time, be better to have relatively little than to have inordinately much; and the worker may be able to come nearer and nearer to the state in which, for him, comforts are plentiful and anxieties are scarce. Amid a vast inequality of mere possessions, there may be less and less of inequality of genuine welfare. Many a man with a modest store may have no wish to change lots with the multimillionaire. For comfortable living, for high thinking, and for the finer traits of humanity, the odds may be in his favor.

In such a state there might easily be realized a stronger democracy than any which a leveling of fortunes would bring. Pulling others down that we may pull ourselves up is not a good initial step in a *régime* of brotherhood; but raising ourselves and others together is the very best step from the first and throughout. And the fraternity which comes in this way is by far the finer, because of inequality of possessions. If we can love no man truly unless we have as much money as he has, our brotherly spirit is of a very peculiar kind, and the fraternity that would depend on such a leveling would have no virility. It would have the pulpy fiber of a rank weed, while the manlier brotherhood that grows in the midst of inequality has the oaken fiber that endures. The relatively poor we shall have with us, and the inordinately rich as well; but it is in the power of humanity to project its fraternal bonds across the chasms which such conditions create. Though there be thrones and principalities in our earthly paradise, they will not mar its perfection, but will develop the finer traits of its inhabitants.

This state is the better because it is not cheaply attained. There are difficulties to be surmounted, which we have barely time to mention and no time to discuss. One of the greatest of these is the vanishing of much competition. The eager rivalry in perfecting methods and multiplying products, which is at the basis of our confidence in the future, seems to have here and there given place to monopoly, which always means apathy and stagnation. We have before us a struggle — a successful one, if we rise to the occasion — to keep alive the essential force of competition; and this fact reveals the very practical relation which intelligence sustains to the different proposals for social improvement. It must put us in the way of keeping effective the mainspring of progress — of surmounting those evils which mar the present prospect. Trained intelligence here has its task marked out for it: it must show that monopoly can be effectively attacked, and must point out the way to do it — a far different way from any yet adopted. Our people have the fortunes of themselves, their children, and their children's children, in their own hands. Surely, and even somewhat rapidly, may the gains we have outlined be made to come by united effort guided by intelligent thought.

It requires discernment to estimate progress itself at its true value. John Stuart Mill made the remark that no system could be worse than the present one, if that system did not admit of improvement. This remark could be made of any system. However fair a social state might at the outset appear, it would be essentially bad if it could never change for the better. The society in which efficient methods supplant inefficient ones, and in which able directors come naturally into control of production, insures a perpetual survival of excellence, and however low might be the state from which such a course of progress took its start, the society would ultimately excel any stationary one that could be imagined. A Purgatory actuated by the principle which guarantees improvement will surpass, in the end, a Paradise which has not this dynamic quality. For a limited class in our own land — chiefly in the slums of cities — life has too much of the purga-

torial quality; for the great body of its inhabitants the condition it affords, though by no means a paradise, is one that would have seemed so to many a civilization of the past and to many a foreign society of to-day. On its future course it is starting from a high level, and is moved by a powerful force toward an ideal which will some day be a reality, and which is therefore inspiring to look upon, even in the distance.

Like Webster, we may hail the advancing generations and bid them welcome to a land that is fairer than our own, and promises to grow fairer and fairer forever. That this prospect be not imperiled — that the forces that make it a reality be enabled to do their work — is what the men of the future ask of the intelligence of to-day.

XVII

THE SUBJECTION OF WOMEN

John Stuart Mill

[John Stuart Mill's essay, *The Subjection of Women* (1867), his last published work, is one of the pioneer documents in a cause that has received constantly increasing attention. Throughout his life Mill had favored the emancipation of women; but the influence most directly responsible for the volume that embodies his opinions on the subject was his wife, to whom he also assigns a great share of the credit for the work *On Liberty*. She herself had written an essay on the *Enfranchisement of Women* which, with her discussions with her husband, laid the foundation for his book.

The first chapter of this work has been selected to present the basic arguments of the modern suffrage movement, as the book can still claim to be a classic of its kind, despite the fact that it is out of date and that many of the unfair discriminations of that day no longer exist. The distinctive feature of Mill's argument on the emancipation question consists in his assertion that the difference of sex is accidental, like the difference of color, and that there are no grounds for forming any conclusions about the limitations of woman, as we really know absolutely nothing about the possibilities of her nature. Needless to say, Mill's views, in an age still innocent of militant propaganda, brought down upon him a storm of criticism, even from the liberals. A brief for the conservatives on this still very live question is given by Mr. Frederic Harrison in the next essay.]

The object of this essay is to explain, as clearly as I am able, the grounds of an opinion which I have held from the very earliest period when I had formed any opinions at all on social or political matters, and which, instead of being weakened or modified, has been constantly growing stronger by the progress of reflection and the experience of life: That the principle which regulates the existing social relations between the two sexes — the legal subordination of one sex to the other — is wrong in itself, and now one of the chief hindrances to human improvement; and

that it ought to be replaced by a principle of perfect equality, admitting no power or privilege on the one side, nor disability on the other.

The very words necessary to express the task I have undertaken, show how arduous it is. But it would be a mistake to suppose that the difficulty of the case must lie in the insufficiency or obscurity of the grounds of reason on which my conviction rests. The difficulty is that which exists in all cases in which there is a mass of feeling to be contended against. So long as an opinion is strongly rooted in the feelings, it gains rather than loses in stability by having a preponderating weight of argument against it. For if it were accepted as a result of argument, the refutation of the argument might shake the solidity of the conviction; but when it rests solely on feeling, the worse it fares in argumentative contest, the more persuaded its adherents are that their feeling must have some deeper ground, which the arguments do not reach; and while the feeling remains, it is always throwing up fresh intrenchments of argument to repair any breach made in the old. And there are so many causes tending to make the feelings connected with this subject the most intense and most deeply rooted of all those which gather round and protect old institutions and customs, that we need not wonder to find them as yet less undermined and loosened than any of the rest by the progress of the great modern spiritual and social transition; nor suppose that the barbarisms to which men cling longest must be less barbarisms than those which they earlier shake off.

In every respect the burden is hard on those who attack an almost universal opinion. They must be very fortunate, as well as unusually capable, if they obtain a hearing at all. They have more difficulty in obtaining a trial than any other litigants have in getting a verdict. If they do extort a hearing, they are subjected to a set of logical requirements totally different from those exacted from other people. In all other cases, the burden of proof is supposed to lie with the affirmative. If a person is charged with a murder, it rests with those who accuse

him to give proof of his guilt, not with himself to prove his innocence. If there is a difference of opinion about the reality of any alleged historical event, in which the feelings of men in general are not much interested, as the siege of Troy for example, those who maintain that the event took place are expected to produce their proofs, before those who take the other side can be required to say anything; and at no time are these required to do more than show that the evidence produced by the others is of no value. Again, in practical matters, the burden of proof is supposed to be with those who are against liberty; who contend for any restriction or prohibition; either any limitation of the general freedom of human action, or any disqualification or disparity of privilege affecting one person or kind of persons, as compared with others. The *à priori* presumption is in favor of freedom and impartiality. It is held that there should be no restraint not required by the general good, and that the law should be no respecter of persons, but should treat all alike, save where dissimilarity of treatment is required by positive reasons, either of justice or of policy. But of none of these rules of evidence will the benefit be allowed to those who maintain the opinion I profess. It is useless for me to say that those who maintain the doctrine that men have a right to command and women are under an obligation to obey, or that men are fit for government and women unfit, are on the affirmative side of the question, and that they are bound to show positive evidence for the assertions, or submit to their rejection. It is equally unavailing for me to say that those who deny to women any freedom or privilege rightly allowed to men, having the double presumption against them that they are opposing freedom and recommending partiality, must be held to the strictest proof of their case, and unless their success be such as to exclude all doubt, the judgment ought to go against them. These would be thought good pleas in any common case; but they will not be thought so in this instance. Before I could hope to make any impression, I should be expected not only to answer all that has ever been said by those who take the other side of the question, but to imagine all that could be

said by them — to find them in reasons, as well as answer all I find: and besides refuting all arguments for the affirmative, I shall be called upon for invincible positive arguments to prove a negative. And even if I could do all this, and leave the opposite party with a host of unanswered arguments against them, and not a single unrefuted one on their side, I should be thought to have done little; for a cause supported on the one hand by universal usage, and on the other by so great a preponderance of popular sentiment, is supposed to have a presumption in its favor superior to any conviction which an appeal to reason has power to produce in any intellects but those of a high class.

I do not mention these difficulties to complain of them: first, because it would be useless; they are inseparable from having to contend through people's understandings against the hostility of their feelings and practical tendencies: and truly the understandings of the majority of mankind would need to be much better cultivated than has ever yet been the case, before they could be asked to place such reliance in their own power of estimating arguments as to give up practical principles in which they have been born and bred and which are the basis of much of the existing order of the world, at the first argumentative attack which they are not capable of logically resisting. I do not therefore quarrel with them for having too little faith in argument, but for having too much faith in custom and the general feeling. It is one of the characteristic prejudices of the reaction of the nineteenth century against the eighteenth, to accord to the unreasoning elements in human nature the infallibility which the eighteenth century is supposed to have ascribed to the reasoning elements. For the apotheosis of Reason we have substituted that of Instinct; and we call everything instinct which we find in ourselves and for which we cannot trace any rational foundation. This idolatry, infinitely more degrading than the other, and the most pernicious of the false worships of the present day, of all of which it is now the main support, will probably hold its ground until it gives way before a sound psychology, laying bare the real root of much that is bowed down to as the intention of nature

and the ordinance of God. As regards the present question, I am willing to accept the unfavorable conditions which the prejudice assigns to me. I consent that established custom, and the general feeling, should be deemed conclusive against me, unless that custom and feeling from age to age can be shown to have owed their existence to other causes than their soundness, and to have derived their power from the worse rather than the better parts of human nature. I am willing that judgment should go against me, unless I can show that my judge has been tampered with. The concession is not so great as it might appear; for to prove this is by far the easiest portion of my task.

The generality of a practice is in some cases a strong presumption that it is, or at all events once was, conducive to laudable ends. This is the case, when the practice was first adopted, or afterwards kept up, as a means to such ends, and was grounded on experience of the mode in which they could be most effectually attained. If the authority of men over women, when first established, had been the result of conscientious comparison between different modes of constituting the government of society; if, after trying various other modes of social organization — the government of women over men, equality between the two, and such mixed and divided modes of government as might be invented — it had been decided, on the testimony of experience, that the mode in which women are wholly under the rule of men, having no share at all in public concerns, and each in private being under the legal obligation of obedience to the man with whom she has associated her destiny, was the arrangement most conducive to the happiness and well-being of both; its general adoption might then be fairly thought to be some evidence that, at the time when it was adopted, it was the best: though even then the considerations which recommended it may, like so many other primeval social facts of the greatest importance, have subsequently, in the course of ages, ceased to exist. But the state of the case is in every respect the reverse of this. In the first place, the opinion in favor of the present system, which entirely subordinates the weaker sex to the stronger, rests upon

theory only; for there never has been trial made of any other: so that experience, in the sense in which it is vulgarly opposed to theory, cannot be pretended to have pronounced any verdict. And in the second place, the adoption of this system of inequality never was the result of deliberation, or forethought, or any social ideas, or any notion whatever of what conduced to the benefit of humanity or the good order of society. It arose simply from the fact that from the very earliest twilight of human society, every woman (owing to the value attached to her by men, combined with her inferiority in muscular strength) was found in a state of bondage to some man. Laws and systems of polity always begin by recognizing the relations they find already existing between individuals. They convert what was a mere physical fact into a legal right, give it the sanction of society, and principally aim at the substitution of public and organized means of asserting and protecting these rights, instead of the irregular and lawless conflict of physical strength. Those who had already been compelled to obedience became in this manner legally bound to it. Slavery, from being a mere affair of force between the master and the slave, became regularized and a matter of compact among the masters, who, binding themselves to one another for common protection, guaranteed by their collective strength the private possessions of each, including his slaves. In early times the great majority of the male sex were slaves, as well as the whole of the female. And many ages elapsed, some of them ages of high cultivation, before any thinker was bold enough to question the rightfulness, and the absolute social necessity, either of the one slavery or of the other. By degrees such thinkers did arise: and (the general progress of society assisting) the slavery of the male sex has, in all the countries of Christian Europe at least (though, in one of them, only within the last few years[1]) been at length abolished, and that of the female sex has been gradually changed into a milder form of dependence. But this dependence, as it exists at present, is not an original institution, taking a fresh start from considerations of justice and social ex-

[1] Serfdom was not abolished in Russia until 1861. — *Editors.*

pediency — it is the primitive state of slavery lasting on, through successive mitigations and modifications occasioned by the same causes which have softened the general manners, and brought all human relations more under the control of justice and the influence of humanity. It has not lost the taint of its brutal origin. No presumption in its favor, therefore, can be drawn from the fact of its existence. The only such presumption which it could be supposed to have, must be grounded on its having lasted till now, when so many other things which came down from the same odious source have been done away with. And this, indeed, is what makes it strange to ordinary ears, to hear it asserted that the inequality of rights between men and women has no other source than the law of the strongest.

That this statement should have the effect of a paradox is in some respects creditable to the progress of civilization, and the improvement of the moral sentiments of mankind. We now live — that is to say, one or two of the most advanced nations of the world now live — in a state in which the law of the strongest seems to be entirely abandoned as the regulating principle of the world's affairs: nobody professes it, and, as regards most of the relations between human beings, nobody is permitted to practice it. When any one succeeds in doing so, it is under cover of some pretext which gives him the semblance of having some general social interest on his side. This being the ostensible state of things, people flatter themselves that the rule of mere force is ended; that the law of the strongest cannot be the reason of existence of anything which has remained in full operation down to the present time. However any of our present institutions may have begun, it can only, they think, have been preserved to this period of advanced civilization by a well-grounded feeling of its adaptation to human nature, and conduciveness to the general good. They do not understand the great vitality and durability of institutions which place right on the side of might; how intensely they are clung to; how the good as well as the bad propensities and sentiments of those who have power in their hands become identified with retaining it; how slowly these bad insti-

tutions give way, one at a time, the weakest first, beginning with those which are least interwoven with the daily habits of life; and how very rarely those who have obtained legal power because they first had physical, have ever lost their hold of it until the physical power had passed over to the other side. Such shifting of the physical force not having taken place in the case of women, this fact, combined with all the peculiar and characteristic features of the particular case, made it certain from the first that this branch of the system of right founded on might, though softened in its most atrocious features at an earlier period than several of the others, would be the very last to disappear. It was inevitable that this one case of a social relation grounded on force would survive through generations of institutions grounded on equal justice, an almost solitary exception to the general character of their laws and customs; but which, so long as it does not proclaim its own origin, and as discussion has not brought out its true character, is not felt to jar with modern civilization, any more than domestic slavery among the Greeks jarred with their notion of themselves as a free people.

The truth is, that people of the present and the last two or three generations have lost all practical sense of the primitive condition of humanity; and only the few who have studied history accurately, or have much frequented the parts of the world occupied by the living representatives of ages long past, are able to form any mental picture of what society then was. People are not aware how entirely, in former ages, the law of superior strength was the rule of life; how publicly and openly it was avowed, I do not say cynically or shamelessly — for these words imply a feeling that there was something in it to be ashamed of, and no such notion could find a place in the faculties of any person in those ages, except a philosopher or a saint. History gives a cruel experience of human nature, in showing how exactly the regard due to the life, possessions, and entire earthly happiness of any class of persons, was measured by what they had the power of enforcing; how all who made any resistance to authorities that had arms in their hands, however dreadful might be the

provocation, had not only the law of force but all other laws and all the notions of social obligation against them; and in the eyes of those whom they resisted, were not only guilty of crime, but of the worst of all crimes, deserving the most cruel chastisement which human beings could inflict. The first small vestige of a feeling of obligation in a superior to acknowledge any right in inferiors, began when he had been induced, for convenience, to make some promise to them. Though these promises, even when sanctioned by the most solemn oaths, were for many ages revoked or violated on the most trifling provocation or temptation, it is probable that this, except by persons of still worse than the average morality, was seldom done without some twinges of conscience. The ancient republics, being mostly grounded from the first upon some kind of mutual compact, or at any rate formed by a union of persons not very unequal in strength, afforded, in consequence, the first instance of a portion of human relations fenced round, and placed under the dominion of another law than that of force. And though the original law of force remained in full operation between them and their slaves, and also (except so far as limited by express compact) between a commonwealth and its subjects, or other independent commonwealths; the banishment of that primitive law, even from so narrow a field, commenced the regeneration of human nature, by giving birth to sentiments of which experience soon demonstrated the immense value even for material interests, and which thenceforward only required to be enlarged, not created. Though slaves were no part of the commonwealth, it was in the free states that slaves were first felt to have rights as human beings. The Stoics were, I believe, the first (except so far as the Jewish law constitutes an exception) who taught as a part of morality that men were bound by moral obligations to their slaves. No one, after Christianity became ascendant, could ever again have been a stranger to this belief, in theory; nor, after the rise of the Catholic Church, was it ever without persons to stand up for it. Yet to enforce it was the most arduous task which Christianity ever had to perform. For more than a thousand years the Church kept up the

contest, with hardly any perceptible success. It was not for want of power over men's minds. Its power was prodigious. It could make kings and nobles resign their most valued possessions to enrich the Church. It could make thousands, in the prime of life and the height of worldly advantages, shut themselves up in convents to work out their salvation by poverty, fasting, and prayer. It could send hundreds of thousands across land and sea, Europe and Asia, to give their lives for the deliverance of the Holy Sepulcher. It could make kings relinquish wives who were the object of their passionate attachment, because the Church declared that they were within the seventh (by our calculation the fourteenth) degree of relationship. All this it did; but it could not make men fight less with one another, nor tyrannize less cruelly over the serfs, and when they were able, over burgesses. It could not make them renounce either of the applications of force: force militant, or force triumphant. This they could never be induced to do until they were themselves in their turn compelled by superior force. Only by the growing power of kings was an end put to fighting except between kings, or competitors for kingship; only by the growth of a wealthy and warlike bourgeoisie in the fortified towns, and of a plebeian infantry which proved more powerful in the field than the undisciplined chivalry, was the insolent tyranny of the nobles over the bourgeoisie and peasantry brought within some bounds. It was persisted in not only until, but long after, the oppressed had obtained a power enabling them often to take conspicuous vengeance; and on the Continent much of it continued to the time of the French Revolution, though in England the earlier and better organization of the democratic classes put an end to it sooner, by establishing equal laws and free national institutions.

If people are mostly so little aware how completely, during the greater part of the duration of our species, the law of force was the avowed rule of general conduct, any other being only a special and exceptional consequence of peculiar ties — and from how very recent a date it is that the affairs of society in general have been even pretended to be regulated according to any moral law;

as little do people remember or consider how institutions and customs which never had any ground but the law of force, last on into ages and states of general opinion which never would have permitted their first establishment. Less than forty years ago, Englishmen might still by law hold human beings in bondage as salable property: within the present century they might kidnap them and carry them off, and work them literally to death. This absolutely extreme case of the law of force, condemned by those who can tolerate almost every other form of arbitrary power, and which, of all others, presents features the most revolting to the feelings of all who look at it from an impartial position, was the law of civilized and Christian England within the memory of persons now living; and in one half of Anglo-Saxon America three or four years ago, not only did slavery exist, but the slave trade, and the breeding of slaves expressly for it, was a general practice between slave states. Yet not only was there a greater strength of sentiment against it, but in England, at least, a less amount either of feeling or of interest in favor of it, than of any other of the customary abuses of force: for its motive was the love of gain, unmixed and undisguised; and those who profited by it were a very small numerical fraction of the country, while the natural feeling of all who were not personally interested in it, was unmitigated abhorrence. So extreme an instance makes it almost superfluous to refer to any other: but consider the long duration of absolute monarchy. In England at present it is the almost universal conviction that military despotism is a case of the law of force, having no other origin or justification. Yet in all the great nations of Europe except England it either still exists, or has only just ceased to exist, and has even now a strong party favorable to it in all ranks of the people, especially among persons of station and consequence. Such is the power of an established system, even when far from universal; when not only in almost every period of history there have been great and well-known examples of the contrary system, but these have almost invariably been afforded by the most illustrious and most prosperous communities. In this

case, too, the possessor of the undue power, the person directly interested in it, is only one person, while those who are subject to it and suffer from it are literally all the rest. The yoke is naturally and necessarily humiliating to all persons, except the one who is on the throne, together with, at most, the one who expects to succeed to it. How different are these cases from that of the power of men over women! I am not now prejudging the question of its justifiableness. I am showing how vastly more permanent it could not but be, even if not justifiable, than these other dominations which have nevertheless lasted down to our own time. Whatever gratification of pride there is in the possession of power, and whatever personal interest in its exercise, is in this case not confined to a limited class, but common to the whole male sex. Instead of being, to most of its supporters, a thing desirable chiefly in the abstract, or, like the political ends usually contended for by factions, of little private importance to any but the leaders; it comes home to the person and hearth of every male head of a family, and of every one who looks forward to being so. The clodhopper exercises, or is to exercise, his share of the power equally with the highest nobleman. And the case is that in which the desire of power is the strongest: for every one who desires power, desires it most over those who are nearest to him, with whom his life is passed, with whom he has most concerns in common, and in whom any independence of his authority is oftenest likely to interfere with his individual preferences. If, in the other cases specified, powers manifestly grounded only on force, and having so much less to support them, are so slowly and with so much difficulty got rid of, much more must it be so with this, even if it rests on no better foundation than those. We must consider, too, that the possessors of the power have facilities in this case, greater than in any other, to prevent any uprising against it. Every one of the subjects lives under the very eye, and almost, it may be said, in the hands, of one of the masters — in closer intimacy with him than with any of her fellow-subjects; with no means of combining against him, no power of even locally overmastering him,

and, on the other hand, with the strongest motives for seeking his favor and avoiding to give him offense. In struggles for political emancipation, everybody knows how often its champions are bought off by bribes, or daunted by terrors. In the case of women, each individual of the subject class is in a chronic state of bribery and intimidation combined. In setting up the standard of resistance, a large number of the leaders, and still more of the followers, must make an almost complete sacrifice of the pleasures or the alleviations of their own individual lot. If ever any system of privilege and enforced subjection had its yoke tightly riveted on the necks of those who are kept down by it, this has. I have not yet shown that it is a wrong system; but every one who is capable of thinking on the subject must see that even if it is, it was certain to outlast all other forms of unjust authority. And when some of the grossest of the other forms still exist in many civilized countries, and have only recently been got rid of in others, it would be strange if that which is so much the deepest rooted had yet been perceptibly shaken anywhere. There is more reason to wonder that the protests and testimonies against it should have been so numerous and so weighty as they are.

Some will object, that a comparison cannot fairly be made between the government of the male sex and the forms of unjust power which I have adduced in illustration of it, since these are arbitrary, and the effect of mere usurpation, while it on the contrary is natural. But was there ever any domination which did not appear natural to those who possessed it? There was a time when the division of mankind into two classes, a small one of masters and a numerous one of slaves, appeared, even to the most cultivated minds, to be a natural, and the only natural, condition of the human race. No less an intellect, and one which contributed no less to the progress of human thought, than Aristotle, held this opinion without doubt or misgiving; and rested it on the same premises on which the same assertion in regard to the dominion of men over women is usually based, namely, that there are different natures among mankind, free natures, and slave

natures; that the Greeks were of a free nature, the barbarian races of Thracians and Asiatics of a slave nature. But why need I go back to Aristotle? Did not the slave owners of the southern United States maintain the same doctrine, with all the fanaticism with which men cling to the theories that justify their passions and legitimate their personal interests? Did they not call heaven and earth to witness that the dominion of the white man over the black is natural, that the black race is by nature incapable of freedom, and marked out for slavery? — some even going so far as to say that the freedom of manual laborers is an unnatural order of things anywhere. Again, the theorists of absolute monarchy have always affirmed it to be the only natural form of government; issuing from the patriarchal, which was the primitive and spontaneous form of society, framed on the model of the paternal, which is anterior to society itself, and, as they contend, the most natural authority of all. Nay, for that matter, the law of force itself, to those who could not plead any other, has always seemed the most natural of all grounds for the exercise of authority. Conquering races hold it to be nature's own dictate that the conquered should obey the conquerors, or, as they euphoniously paraphrase it, that the feebler and more unwarlike races should submit to the braver and manlier. The smallest acquaintance with human life in the Middle Ages shows how supremely natural the dominion of the feudal nobility over men of low condition appeared to the nobility themselves, and how unnatural the conception seemed of a person of the inferior class claiming equality with them, or exercising authority over them. It hardly seemed less so to the class held in subjection. The emancipated serfs and burgesses, even in their most vigorous struggles, never made any pretension to a share of authority; they only demanded more or less limitation to the power of tyrannizing over them. So true is it that unnatural generally means only uncustomary, and that everything which is usual appears natural. The subjection of women to men being a universal custom, any departure from it quite naturally appears unnatural. But how entirely, even in this case, the feeling is

dependent on custom, appears by ample experience. Nothing so much astonishes the people of distant parts of the world, when they first learn anything about England, as to be told that it is under a queen; the thing seems to them so unnatural as to be almost incredible. To Englishmen this does not seem in the least degree unnatural, because they are used to it; but they do feel it unnatural that women should be soldiers or members of Parliament. In the feudal ages, on the contrary, war and politics were not thought unnatural to women, because not unusual; it seemed natural that women of the privileged classes should be of manly character, inferior in nothing but bodily strength to their husbands and fathers. The independence of women seemed rather less unnatural to the Greeks than to other ancients, on account of the fabulous Amazons (whom they believed to be historical), and the partial example afforded by the Spartan women; who, though no less subordinate by law than in other Greek states, were more free in fact; and being trained to bodily exercises in the same manner with men, gave ample proof that they were not naturally disqualified for them. There can be little doubt that Spartan experience suggested to Plato, among many other of his doctrines, that of the social and political equality of the two sexes.

But, it will be said, the rule of men over women differs from all these others in not being a rule of force: it is accepted voluntarily; women make no complaint, and are consenting parties to it. In the first place, a great number of women do not accept it. Ever since there have been women able to make their sentiments known by their writings (the only mode of publicity which society permits to them), an increasing number of them have recorded protests against their present social condition: and recently many thousands of them, headed by the most eminent women known to the public, have petitioned Parliament for their admission to the Parliamentary suffrage. The claim of women to be educated as solidly, and in the same branches of knowledge, as men, is urged with growing intensity, and with a great prospect of success; while the demand for their admission

into professions and occupations hitherto closed against them, becomes every year more urgent. Though there are not in this country, as there are in the United States, periodical conventions and an organized party to agitate for the rights of women, there is a numerous and active society organized and managed by women, for the more limited object of obtaining the political franchise. Nor is it only in our own country and in America that women are beginning to protest, more or less collectively, against the disabilities under which they labor. France, and Italy, and Switzerland, and Russia now afford examples of the same thing. How many more women there are who silently cherish similar aspirations, no one can possibly know; but there are abundant tokens how many *would* cherish them, were they not so strenuously taught to repress them as contrary to the proprieties of their sex. It must be remembered, also, that no enslaved class ever asked for complete liberty at once. When Simon de Montfort called the deputies of the commons to sit for the first time in Parliament, did any of them dream of demanding that an assembly, elected by their constituents, should make and destroy ministries, and dictate to the king in affairs of state? No such thought entered into the imagination of the most ambitious of them. The nobility had already these pretensions; the commons pretended to nothing but to be exempt from arbitrary taxation, and from the gross individual oppression of the king's officers. It is a political law of nature that those who are under any power of ancient origin, never begin by complaining of the power itself, but only of its oppressive exercise. There is never any want of women who complain of ill usage by their husbands. There would be infinitely more, if complaint were not the greatest of all provocatives to a repetition and increase of the ill usage. It is this which frustrates all attempts to maintain the power but protect the woman against its abuses. In no other case (except that of a child) is the person who has been proved judicially to have suffered an injury, replaced under the physical power of the culprit who inflicted it. Accordingly wives, even in the most extreme and protracted

cases of bodily ill usage, hardly ever dare avail themselves of the laws made for their protection; and if, in a moment of irrepressible indignation, or by the interference of neighbors, they are induced to do so, their whole effort afterwards is to disclose as little as they can, and to beg off their tyrant from his merited chastisement.

All causes, social and natural, combine to make it unlikely that women should be collectively rebellious to the power of men. They are so far in a position different from all other subject classes, that their masters require something more from them than actual service. Men do not want solely the obedience of women, they want their sentiments. All men, except the most brutish, desire to have, in the woman most nearly connected with them, not a forced slave but a willing one, not a slave merely, but a favorite. They have therefore put everything in practice to enslave their minds. The masters of all other slaves rely, for maintaining obedience, on fear, — either fear of themselves, or religious fears. The masters of women wanted more than simple obedience, and they turned the whole force of education to effect their purpose. All women are brought up from the very earliest years in the belief that their ideal of character is the very opposite to that of men; not self-will and government by self-control, but submission and yielding to the control of others. All the moralities tell them that it is the duty of women, and all the current sentimentalities that it is their nature, to live for others, to make complete abnegation of themselves, and to have no life but in their affections. And by their affections are meant the only ones they are allowed to have — those to the men with whom they are connected, or to the children who constitute an additional and indefeasible tie between them and a man. When we put together three things — first, the natural attraction between opposite sexes; secondly, the wife's entire dependence on the husband, every privilege or pleasure she has being either his gift, or depending entirely on his will; and lastly, that the principal object of human pursuit, consideration, and all objects of social ambition, can in general be sought or obtained by her only through him, it would be a miracle if the object of being

attractive to men had not become the polar star of feminine education and formation of character. And this great means of influence over the minds of women having been acquired, an instinct of selfishness made men avail themselves of it to the utmost as a means of holding women in subjection, by representing to them meekness, submissiveness, and resignation of all individual will into the hands of a man, as an essential part of sexual attractiveness. Can it be doubted that any of the other yokes which mankind have succeeded in breaking, would have subsisted till now if the same means had existed, and had been as sedulously used, to bow down their minds to it? If it had been made the object of the life of every young plebeian to find personal favor in the eyes of some patrician, of every young serf with some seigneur; if domestication with him, and a share of his personal affections, had been held out as the prize which they all should look out for, the most gifted and aspiring being able to reckon on the most desirable prizes; and if, when this prize had been obtained, they had been shut out by a wall of brass from all interests not centering in him, all feelings and desires but those which he shared or inculcated; would not serfs and seigneurs, plebeians and patricians, have been as broadly distinguished at this day as men and women are? And would not all but a thinker here and there have believed the distinction to be a fundamental and unalterable fact in human nature?

The preceding considerations are amply sufficient to show that custom, however universal it may be, affords in this case no presumption, and ought not to create any prejudice, in favor of the arrangements which place women in social and political subjection to men. But I may go further, and maintain that the course of history, and the tendencies of progressive human society, afford not only no presumption in favor of this system of inequality of rights, but a strong one against it; and that, so far as the whole course of human improvement up to this time, the whole stream of modern tendencies, warrants any inference on the subject, it is, that this relic of the past is discordant with the future, and must necessarily disappear.

For, what is the peculiar character of the modern world — the difference which chiefly distinguishes modern institutions, modern social ideas, modern life itself, from those of times long past? It is, that human beings are no longer born to their place in life, and chained down by an inexorable bond to the place they are born to, but are free to employ their faculties, and such favorable chances as offer, to achieve the lot which may appear to them most desirable. Human society of old was constituted on a very different principle. All were born to a fixed social position, and were mostly kept in it by law, or interdicted from any means by which they could emerge from it. As some men are born white and others black, so some were born slaves and others freemen and citizens; some were born patricians, others plebeians; some were born feudal nobles, others commoners and *roturiers*.[1] A slave or serf could never make himself free, nor, except by the will of his master, become so. In most European countries it was not till towards the close of the Middle Ages, and as a consequence of the growth of regal power, that commoners could be ennobled. Even among nobles, the eldest son was born the exclusive heir to the paternal possessions, and a long time elapsed before it was fully established that the father could disinherit him. Among the industrious classes, only those who were born members of a guild, or were admitted into it by its members, could lawfully practice their calling within its local limits; and nobody could practice any calling deemed important in any but the legal manner — by processes authoritatively prescribed. Manufacturers have stood in the pillory for presuming to carry on their business by new and improved methods. In modern Europe, and most in those parts of it which have participated most largely in all other modern improvements, diametrically opposite doctrines now prevail. Law and government do not undertake to prescribe by whom any social or industrial operation shall or shall not be conducted, or what modes of conducting them shall be lawful. These things are left to the unfettered choice of individuals. Even the laws which required that

[1] Plebeians. — *Editors.*

workmen should serve an apprenticeship, have in this country been repealed: there being ample assurance that in all cases in which an apprenticeship is necessary, its necessity will suffice to enforce it. The old theory was, that the least possible should be left to the choice of the individual agent; that all he had to do should, as far as practicable, be laid down for him by superior wisdom. Left to himself he was sure to go wrong. The modern conviction, the fruit of a thousand years of experience, is, that things in which the individual is the person directly interested, never go right but as they are left to his own discretion; and that any regulation of them by authority, except to protect the rights of others, is sure to be mischievous. This conclusion, slowly arrived at, and not adopted until almost every possible application of the contrary theory had been made with disastrous result, now (in the industrial department) prevails universally in the most advanced countries, almost universally in all that have pretensions to any sort of advancement. It is not that all processes are supposed to be equally good, or all persons to be equally qualified for everything; but that freedom of individual choice is now known to be the only thing which procures the adoption of the best processes, and throws each operation into the hands of those who are best qualified for it. Nobody thinks it necessary to make a law that only a strong-armed man shall be a blacksmith. Freedom and competition suffice to make blacksmiths strong-armed men, because the weak-armed can earn more by engaging in occupations for which they are more fit. In consonance with this doctrine, it is felt to be an overstepping of the proper bounds of authority to fix beforehand, on some general presumption, that certain persons are not fit to do certain things. It is now thoroughly known and admitted that if some such presumptions exist, no such presumption is infallible. Even if it be well grounded in a majority of cases, which it is very likely not to be, there will be a minority of exceptional cases in which it does not hold: and in those it is both an injustice to the individuals, and a detriment to society, to place barriers in the way of their using their faculties for their own benefit and for that

of others. In the cases, on the other hand, in which the unfitness is real, the ordinary motives of human conduct will on the whole suffice to prevent the incompetent person from making, or from persisting in, the attempt.

If this general principle of social and economical science is not true; if individuals, with such help as they can derive from the opinion of those who know them, are not better judges than the law and the government, of their own capacities and vocation; the world cannot too soon abandon this principle, and return to the old system of regulations and disabilities. But if the principle is true, we ought to act as if we believed it, and not to ordain that to be born a girl instead of a boy, any more than to be born black instead of white, or a commoner instead of a nobleman, shall decide the person's position through all life — shall interdict people from all the more elevated social positions, and from all, except a few, respectable occupations. Even were we to admit the utmost that is ever pretended as to the superior fitness of men for all the functions now reserved to them, the same argument applies which forbids a legal qualification for members of Parliament. If only once in a dozen years the conditions of eligibility exclude a fit person, there is a real loss, while the exclusion of thousands of unfit persons is no gain; for if the constitution of the electoral body disposes them to choose unfit persons, there are always plenty of such persons to choose from. In all things of any difficulty and importance, those who can do them well are fewer than the need, even with the most unrestricted latitude of choice; and any limitation of the field of selection deprives society of some chances of being served by the competent, without ever saving it from the incompetent.

At present, in the more improved countries, the disabilities of women are the only case, save one, in which laws and institutions take persons at their birth, and ordain that they shall never in all their lives be allowed to compete for certain things. The one exception is that of royalty. Persons still are born to the throne; no one, not of the reigning family, can ever occupy it, and no one even of that family can, by any means but the course of heredi-

tary succession, attain it. All other dignities and social advantages are open to the whole male sex; many indeed are only attainable by wealth, but wealth may be striven for by any one, and is actually obtained by many men of the very humblest origin. The difficulties, to the majority, are indeed insuperable without the aid of fortunate accidents; but no male human being is under any legal ban; neither law nor opinion superadd artificial obstacles to the natural ones. Royalty, as I have said, is excepted; but in this case every one feels it to be an exception — an anomaly in the modern world, in marked opposition to its customs and principles, and to be justified only by extraordinary special expediencies, which, though individuals and nations differ in estimating their weight, unquestionably do in fact exist. But in this exceptional case, in which a high social function is, for important reasons, bestowed on birth instead of being put up to competition, all free nations contrive to adhere in substance to the principle from which they nominally derogate; for they circumscribe this high function by conditions avowedly intended to prevent the person to whom it ostensibly belongs from really performing it; while the person by whom it is performed, the responsible minister, does obtain the post by a competition from which no full-grown citizen of the male sex is legally excluded. The disabilities, therefore, to which women are subject from the mere fact of their birth, are the solitary examples of the kind in modern legislation. In no instance except this, which comprehends half the human race, are the higher social functions closed against any one by a fatality of birth which no exertions, and no change of circumstances, can overcome; for even religious disabilities (besides that in England and in Europe they have practically almost ceased to exist) do not close any career to the disqualified person in case of conversion.

The social subordination of women thus stands out an isolated fact in modern social institutions; a solitary breach of what has become their fundamental law; a single relic of an old world of thought and practice exploded in everything else, but retained in the one thing of most universal interest; as if a gigantic

dolmen, or a vast temple of Jupiter Olympus, occupied the site of St. Paul's and received daily worship, while the surrounding Christian churches were only resorted to on fasts and festivals. This entire discrepancy between one social fact and all those which accompany it, and the radical opposition between its nature and the progressive movement which is the boast of the modern world, and which has successively swept away everything else of an analogous character, surely affords, to a conscientious observer of human tendencies, serious matter for reflection. It raises a *prima facie* presumption on the unfavorable side, far outweighing any which custom and usage could in such circumstances create on the favorable; and should at least suffice to make this, like the choice between republicanism and royalty, a balanced question.

The least that can be demanded is, that the question should not be considered as prejudged by existing fact and existing opinion, but open to discussion on its merits, as a question of justice and expediency; the decision on this, as on any of the other social arrangements of mankind, depending on what an enlightened estimate of tendencies and consequences may show to be most advantageous to humanity in general, without distinction of sex. And the discussion must be a real discussion, descending to foundations, and not resting satisfied with vague and general assertions. It will not do, for instance, to assert in general terms, that the experience of mankind has pronounced in favor of the existing system. Experience cannot possibly have decided between two courses, so long as there has only been experience of one. If it be said that the doctrine of the equality of the sexes rests only on theory, it must be remembered that the contrary doctrine also has only theory to rest upon. All that is proved in its favor by direct experience, is that mankind have been able to exist under it, and to attain the degree of improvement and prosperity which we now see; but whether that prosperity has been attained sooner, or is now greater, than it would have been under the other system, experience does not say. On the other hand, experience does say, that every step in

improvement has been so invariably accompanied by a step made in raising the social position of women, that historians and philosophers have been led to adopt their elevation or debasement as on the whole the surest test and most correct measure of the civilization of a people or an age. Through all the progressive period of human history, the condition of women has been approaching nearer to equality with men. This does not of itself prove that the assimilation must go on to complete equality; but it assuredly affords some presumption that such is the case.

Neither does it avail anything to say that the *nature* of the two sexes adapts them to their present functions and position, and renders these appropriate to them. Standing on the ground of common sense and the constitution of the human mind, I deny that any one knows, or can know, the nature of the two sexes, as long as they have only been seen in their present relation to one another. If men had ever been found in society without women, or women without men, or if there had been a society of men and women in which the women were not under the control of the men, something might have been positively known about the mental and moral differences which may be inherent in the nature of each. What is now called the nature of women is an eminently artificial thing — the result of forced repression in some directions, unnatural stimulation in others. It may be asserted without scruple, that no other class of dependents have had their character so entirely distorted from its natural proportions by their relation with their masters; for, if conquered, and slave races have been, in some respects, more forcibly repressed, whatever in them has not been crushed down by an iron heel has generally been let alone, and if left with any liberty of development, it has developed itself according to its own laws; but in the case of women, a hothouse and stove cultivation has always been carried on of some of the capabilities of their nature, for the benefit and pleasure of their masters. Then, because certain products of the general vital force sprout luxuriantly and reach a great development in this heated atmosphere and under this active nurture and watering, while other

shoots from the same root, which are left outside in the wintry air, with ice purposely heaped all round them, have a stunted growth, and some are burnt off with fire and disappear; men, with that inability to recognize their own work which distinguishes the unanalytic mind, indolently believe that the tree grows of itself in the way they have made it grow, and that it would die if one half of it were not kept in a vapor bath and the other half in the snow.

Of all difficulties which impede the progress of thought, and the formation of well-grounded opinions on life and social arrangements, the greatest is now the unspeakable ignorance and inattention of mankind in respect to the influences which form human character. Whatever any portion of the human species now are, or seem to be, such, it is supposed, they have a natural tendency to be: even when the most elementary knowledge of the circumstances in which they have been placed clearly points out the causes that made them what they are. Because a cotter deeply in arrears to his landlord is not industrious, there are people who think that the Irish are naturally idle. Because constitutions can be overthrown when the authorities appointed to execute them turn their arms against them, there are people who think the French incapable of free government. Because the Greeks cheated the Turks, and the Turks only plundered the Greeks, there are persons who think that the Turks are naturally more sincere: and because women, as is often said, care nothing about politics except their personalities, it is supposed that the general good is naturally less interesting to women than to men. History, which is now so much better understood than formerly, teaches another lesson: if only by showing the extraordinary susceptibility of human nature to external influences, and the extreme variableness of those of its manifestations which are supposed to be most universal and uniform. But in history, as in traveling, men usually see only what they already have in their own minds; and few learn much from history who do not bring much with them to its study.

Hence, in regard to that most difficult question, what are the

natural differences between the two sexes — a subject on which it is impossible in the present state of society to obtain complete and correct knowledge — while almost everybody dogmatizes upon it, almost all neglect and make light of the only means by which any partial insight can be obtained into it. This is, an analytic study of the most important department of psychology, the laws of the influence of circumstances on character. For, however great and apparently ineradicable the moral and intellectual differences between men and women might be, the evidence of their being natural differences could only be negative. Those only could be inferred to be natural which could not possibly be artificial — the residuum, after deducting every characteristic of either sex which can admit of being explained from education or external circumstances. The profoundest knowledge of the laws of the formation of character is indispensable to entitle any one to affirm even that there is any difference, much more what the difference is, between the two sexes considered as moral and rational beings; and since no one, as yet, has that knowledge (for there is hardly any subject which, in proportion to its importance, has been so little studied), no one is thus far entitled to any positive opinion on the subject. Conjectures are all that can at present be made; conjectures more or less probable, according as more or less authorized by such knowledge as we yet have of the laws of psychology, as applied to the formation of character.

Even the preliminary knowledge, what the differences between the sexes now are, apart from all question as to how they are made what they are, is still in the crudest and most incomplete state. Medical practitioners and physiologists have ascertained, to some extent, the differences in bodily constitution; and this is an important element to the psychologist; but hardly any medical practitioner is a psychologist. Respecting the mental characteristics of women, their observations are of no more worth than those of common men. It is a subject on which nothing final can be known, so long as those who alone can really know it, women themselves, have given but little testimony, and that

little, mostly suborned. It is easy to know stupid women. Stupidity is much the same all the world over. A stupid person's notions and feelings may confidently be inferred from those which prevail in the circle by which the person is surrounded. Not so with those whose opinions and feelings are an emanation from their own nature and faculties. It is only a man here and there who has any tolerable knowledge of the character even of the women of his own family. I do not mean, of their capabilities; these nobody knows, not even themselves, because most of them have never been called out. I mean their actually existing thoughts and feelings. Many a man thinks he perfectly understands women, because he has had amatory relations with several, perhaps with many of them. If he is a good observer, and his experience extends to quality as well as quantity, he may have learned something of one narrow department of their nature — an important department, no doubt. But of all the rest of it, few persons are generally more ignorant, because there are few from whom it is so carefully hidden. The most favorable case which a man can generally have for studying the character of a woman, is that of his own wife; for the opportunities are greater, and the cases of complete sympathy not so unspeakably rare. And in fact, this is the source from which any knowledge worth having on the subject has, I believe, generally come. But most men have not had the opportunity of studying in this way more than a single case; accordingly one can, to an almost laughable degree, infer what a man's wife is like from his opinions about women in general. To make even this one case yield any result, the woman must be worth knowing, and the man not only a competent judge, but of a character so sympathetic in itself, and so well adapted to hers, that he can either read her mind by sympathetic intuition, or has nothing in himself which makes her shy of disclosing it. Hardly anything, I believe, can be more rare than this conjunction. It often happens that there is the most complete unity of feeling and community of interests as to all external things, yet the one has as little admission into the internal life of the other as if they were

common acquaintance. Even with true affection, authority on the one side and subordination on the other prevent perfect confidence. Though nothing may be intentionally withheld, much is not shown. In the analogous relation of parent and child, the corresponding phenomenon must have been in the observation of every one. As between father and son, how many are the cases in which the father, in spite of real affection on both sides, obviously to all the world does not know, nor suspect, parts of the son's character familiar to his companions and equals. The truth is, that the position of looking up to another is extremely unpropitious to complete sincerity and openness with him. The fear of losing ground in his opinion or in his feelings is so strong, that even in an upright character, there is an unconscious tendency to show only the best side, or the side which, though not the best, is that which he most likes to see; and it may be confidently said that thorough knowledge of one another hardly ever exists, but between persons who, besides being intimates, are equals. How much more true, then, must all this be, when the one is not only under the authority of the other, but has it inculcated on her as a duty to reckon everything else subordinate to his comfort and pleasure, and to let him neither see nor feel anything coming from her, except what is agreeable to him. All these difficulties stand in the way of a man's obtaining any thorough knowledge even of the one woman whom alone, in general, he has sufficient opportunity of studying. When we further consider that to understand one woman is not necessarily to understand any other woman; that even if he could study many women of one rank, or of one country, he would not thereby understand women of other ranks or countries; and even if he did, they are still only the women of a single period of history; we may safely assert that the knowledge which men can acquire of women, even as they have been and are, without reference to what they might be, is wretchedly imperfect and superficial, and always will be so, until women themselves have told all that they have to tell.

And this time has not come; nor will it come otherwise than

gradually. It is but of yesterday that women have either been qualified by literary accomplishments, or permitted by society, to tell anything to the general public. As yet very few of them dare tell anything which men, on whom their literary success depends, are unwilling to hear. Let us remember in what manner, up to a very recent time, the expression, even by a male author, of uncustomary opinions, or what are deemed eccentric feelings, usually was, and in some degree still is, received; and we may form some faint conception under what impediments a woman, who is brought up to think custom and opinion her sovereign rule, attempts to express in books anything drawn from the depths of her own nature. The greatest woman who has left writings behind her sufficient to give her an eminent rank in the literature of her country, thought it necessary to prefix as a motto to her boldest work, "*Un homme peut braver l'opinion; une femme doit s'y soumettre.*"[1] The greater part of what women write about women is mere sycophancy to men. In the case of unmarried women, much of it seems only intended to increase their chance of a husband. Many, both married and unmarried, overstep the mark, and inculcate a servility beyond what is desired or relished by any man, except the very vulgarest. But this is not so often the case as, even at a quite late period, it still was. Literary women are becoming more free-spoken, and more willing to express their real sentiments. Unfortunately, in this country especially, they are themselves such artificial products that their sentiments are compounded of a small element of individual observation and consciousness, and a very large one of acquired associations. This will be less and less the case, but it will remain true to a great extent, as long as social institutions do not admit the same free development of originality in women which is possible to men. When that time comes, and not before, we shall see, and not merely hear, as much as it is necessary to know of the nature of women, and the adaptation of other things to it.

[1] A man may defy opinion; a woman must submit to it. — *Editors.* Title-page of Mme. de Staël's *Delphine.*

I have dwelt so much on the difficulties which at present obstruct any real knowledge by men of the true nature of women, because in this as in so many other things "*opinio copiæ inter maximas causas inopiæ est;*" [1] and there is little chance of reasonable thinking on the matter, while people flatter themselves that they perfectly understand a subject of which most men know absolutely nothing, and of which it is at present impossible that any man, or all men taken together, should have knowledge which can qualify them to lay down the law to women as to what is, or is not, their vocation. Happily, no such knowledge is necessary for any practical purpose connected with the position of women in relation to society and life. For, according to all the principles involved in modern society, the question rests with women themselves — to be decided by their own experience, and by the use of their own faculties. There are no means of finding what either one person or many can do, but by trying — and no means by which any one else can discover for them what it is for their happiness to do or leave undone.

One thing we may be certain of — that what is contrary to women's nature to do, they never will be made to do by simply giving their nature free play. The anxiety of mankind to interfere in behalf of nature, for fear lest nature should not succeed in effecting its purpose, is an altogether unnecessary solicitude. What women by nature cannot do, it is quite superfluous to forbid them from doing. What they can do, but not so well as the men who are their competitors, competition suffices to exclude them from; since nobody asks for protective duties and bounties in favor of women; it is only asked that the present bounties and protective duties in favor of men should be recalled. If women have a greater natural inclination for some things than for others, there is no need of laws or social inculcation to make the majority of them do the former in preference to the latter. Whatever women's services are most wanted for, the free play of competition will hold out the strongest inducements to them to undertake. And, as the words imply, they are most wanted

[1] Supposed abundance is among the chief causes of want. — *Editors.*

for the things for which they are most fit; by the apportionment of which to them, the collective faculties of the two sexes can be applied on the whole with the greatest sum of valuable result.

The general opinion of men is supposed to be, that the natural vocation of a woman is that of a wife and mother. I say, is supposed to be, because, judging from acts — from the whole of the present constitution of society — one might infer that their opinion was the direct contrary. They might be supposed to think that the alleged natural vocation of women was of all things the most repugnant to their nature; insomuch that if they are free to do anything else — if any other means of living, or occupation of their time and faculties, is open, which has any chance of appearing desirable to them — there will not be enough of them who will be willing to accept the condition said to be natural to them. If this is the real opinion of men in general, it would be well that it should be spoken out. I should like to hear somebody openly enunciating the doctrine (it is already implied in much that is written on the subject) — "It is necessary to society that women should marry and produce children. They will not do so unless they are compelled. Therefore it is necessary to compel them." The merits of the case would then be clearly defined. It would be exactly that of the slaveholders of South Carolina and Louisiana. "It is necessary that cotton and sugar should be grown. White men cannot produce them. Negroes will not, for any wages which we choose to give. *Ergo* they must be compelled." An illustration still closer to the point is that of impressment. Sailors must absolutely be had to defend the country. It often happens that they will not voluntarily enlist. Therefore there must be the power of forcing them. How often has this logic been used! and, but for one flaw in it, without doubt it would have been successful up to this day. But it is open to the retort — First pay the sailors the honest value of their labor. When you have made it as well worth their while to serve you, as to work for other employers, you will have no more difficulty than others have in obtaining their services. To this there is no logical

answer except "I will not:" and as people are now not only ashamed, but are not desirous, to rob the laborer of his hire, impressment is no longer advocated. Those who attempt to force women into marriage by closing all other doors against them, lay themselves open to a similar retort. If they mean what they say, their opinion must evidently be, that men do not render the married condition so desirable to women as to induce them to accept it for its own recommendations. It is not a sign of one's thinking the boon one offers very attractive when one allows only Hobson's choice, "that or none." And here, I believe, is the clew to the feelings of those men who have a real antipathy to the equal freedom of women. I believe they are afraid, not lest women should be unwilling to marry, for I do not think that any one in reality has that apprehension; but lest they should insist that marriage should be on equal conditions; lest all women of spirit and capacity should prefer doing almost anything else, not in their own eyes degrading, rather than marry, when marrying is giving themselves a master, and a master too of all their earthly possessions. And truly, if this consequence were necessarily incident to marriage, I think that the apprehension would be very well founded. I agree in thinking it probable that few women, capable of anything else, would, unless under an irresistible *entrainement*,[1] rendering them for the time insensible to anything but itself, choose such a lot, when any other means were open to them of filling a conventionally honorable place in life: and if men are determined that the law of marriage shall be a law of despotism, they are quite right, in point of mere policy, in leaving to women only Hobson's choice. But, in that case, all that has been done in the modern world to relax the chain on the minds of women, has been a mistake. They never should have been allowed to receive a literary education. Women who read, much more women who write, are, in the existing constitution of things, a contradiction and a disturbing element: and it was wrong to bring women up with any acquirements but those of an odalisque, or of a domestic servant.

[1] Impulse. — *Editors.*

XVIII

THE FUTURE OF WOMAN[1]

FREDERIC HARRISON

[Frederic Harrison (1831–) is one of the last survivors of a notable generation of critics and men of letters of the late nineteenth century. Throughout his long life Mr. Harrison has written much on general literature, history, biography, philosophy, religion, education, and political and economic science. He has also been prominent as a jurist, and has taken an active part in the political and social affairs of England, where he has done much for the practical advancement of progressive opinions.

Mr. Harrison's political views, however, do not extend to the support of woman suffrage, although he regards the question as a very burning one, and the continued agitation over it "charged with tremendous consequences, political, social, and moral." His opinions on the subject of the rights, duties, and claims of women are contained in four essays, printed in his volume *Realities and Ideals* (1908). The introductory essay of this group has been chosen as an able presentation of some of the fundamental arguments often urged by opponents of woman suffrage. Mr. Harrison makes no apology for male tyranny now or in the past and admits that many legal and social changes are needed for woman's best development; but he argues that to break down the barriers that tend to distinguish the life of woman from that of man would be to shake the foundations of all family life and bring disaster to civilization. An earlier statement of these opinions, and especially interesting here, is Mr. Harrison's analysis and refutation of the claims of Mill's *Subjection of Women* in his volume *Tennyson, Ruskin, Mill, and other Literary Estimates* (1900), pp. 289–297.]

THE system of thought on which this entire series of essays is based seeks to moralize and to spiritualize the great institutions of society — not to revolutionize or to materialize them. In nothing is this character more conspicuous than in its teach-

[1] Reprinted by permission of The Macmillan Company, from *Realities and Ideals*, by Frederic Harrison.

ing as to the social Future of Woman. It is intensely conservative as to the distinctive quality with which civilization has ever invested women, whilst it is ardently progressive in its aim to purify and spiritualize the social function of women. It holds firmly the middle ground between the base apathy which is satisfied with the actual condition of woman as it is, and the restless materialism which would assimilate, as far as possible, the distinctive functions of women to those of men, which would "equalize the sexes" in the spirit of justice, as they phrase it, and would pulverize the social groups of families, sexes, and professions into individuals organized, if at all, by unlimited resort to the ballot box. Herein we are truly conservative in holding society to be made up of *families*, not of individuals, and in developing, not in annihilating, the differences of sex, age, and relation between individuals.

But first, let us get rid of the unworthy suspicion that we are content with the condition of women as we see it, even in the advanced populations of the West to-day. As M. Laffitte has so well put it, the "test of civilization is the place which it assigns to women." In a rudimentary state we find women treated with brutal oppression, little better than slaves or beasts of burden, where the conditions of existence make such tasks almost a cruel necessity for all. In many societies of a high civilization, from the point of view of intellectual activity or military organization, the condition of women is often found to be one of seclusion, neglect, or humiliation, moral, physical, and intellectual. Even to-day, under the most favorable conditions — conditions, perhaps, more often found in some sections of the laboring classes of cities rather than amongst the spoiled daughters of wealth and power — it is shocking to see how backward is the education of women as a sex, how much their lives are overburdened by labor, anxiety, and unwomanly fatigues, by frivolous excitement and undue domestic responsibility, by the fever of public ambitions and cynical defiance of all womanly ideals.

No! we can never rest satisfied with the current prejudice

that assigns to woman, even to those with ample leisure and resources, an education different in kind and degree and avowedly inferior to that of men, which supposes that even a superior education for girls should be limited to moderate knowledge of a few modern languages, and a few elegant accomplishments. This truly Mohammedan or Hindu view of woman's education is no longer openly avowed by cultured people of our own generation. But it is too obviously still the practice in fact throughout the whole Western world, even for nine tenths of the rich. And as to the education which is officially provided for the poor, it is in this country, at least, almost too slight to deserve the name at all. For this most dreadful neglect let us call aloud for radical relief. We call aloud for an education for women in the same line as that of men, to be given by the same teachers, and covering the same ground, though not at all necessarily to be worked out in common or in the same form and with the same practical detail. It must be an education, essentially in scientific basis the same as that of men, conducted by the same, and those the best attainable, instructors — an education certainly not inferior, rather superior to that of men, inasmuch as it can easily be freed from the drudgery incidental to the practice of special trades, and also because it is adapted to the more sympathetic, more alert, more tractable, more imaginative intelligence of women.

So, also, we look to the good feeling of the future to relieve women from the agonizing wear and tear of families far too large to be reared by one mother — a burden which crushes down the best years of life for so many mothers, sisters, and daughters — a burden which, whilst it exists, makes all expectation of superior education or greater moral elevation in the masses of women mere idle talk — a burden which would never be borne at all, were it not that the cry of the market for more child labor produces an artificial bounty on excessively large families. And to the future we look to set women free from the crushing factory labor which is the real slave trade of the nineteenth century, one of the most retrograde changes in social

order ever made since Feudalism and Church together extinguished the slavery of the ancient world. In many ways this slavery of modern Industrialism is quite as demoralizing to men and women, and in some ways as injurious to society, as ever was the mitigated slavery of the Roman Empire, though its evils are not quite so startling and so cruel.

These are the wants which, in our eyes, press with greatest urgency on the conditions of women, and not their admission to all the severe labors and engrossing professions of men, the assimilation of the life of women to the life of men, and especially to a share in all public duties and privileges. The root of the matter is that the social function of women is essentially and increasingly different from that of men. What is this function? It is personal, direct, domestic; working rather through sympathy than through action, equally intellectual as that of men, but acting more through the imagination, and less through logic. We start from this — neither exaggerating the difference, nor denying it, but resting in the organic difference between woman and man. It is proved by all sound biology, by the biology both of man and of the entire animal series. It is proved also by the history of civilization, and the entire course of human evolution. It is brought home to us every hour of the day, by the instinctive practice of every family. And it is illustrated and idealized by the noblest poetry of the world, whether it be the great epics of the past or the sum of modern romance.

It is a difference of nature, I say, an organic difference, alike in body, in mind, in feeling, and in character — a difference which it is the part of evolution to develop and not to destroy, as it is always the part of evolution to develop organic differences and not to produce their artificial assimilation. A difference, as I have said; but not a scale of superiority or inferiority. No theory more than ours repudiates the brutal egoism of past ages, and of too many present men of the world, which classes women as the inferiors of men, and the cheap sophistry of the vicious and the overbearing that the part of women in

the life of humanity is a lower, a less intellectual, or less active part. Such a view is the refuge of coarse natures and stunted brains. Who can say whether it is nobler to be husband or to be wife, to be mother or to be son? Is it more blessed to love or to be loved, to form a character or to write a poem? Enough of these idle conundrums, which are as cynical as they are senseless. Everything depends on how the part is played, how near each one of us comes to the higher ideal — *how* our life is worked out, not whether we be born man or woman, in the first half of the century or in the second. The thing which concerns us is to hold fast by the organic difference implanted by Nature between Man and Woman, in body, in mind, in feeling, and in energy, without any balancing of higher and lower, of better or of worse.

Fully to work out the whole meaning of this difference in all its details, would involve a complete analysis in Anthropology and Ethics, and nothing but the bare heads of the subject can here be noticed. It begins with the difference in physical organization — the condition, and, no doubt in one sense, the antecedent (I do not say the *cause*) of every other difference. The physical organization of women differs from that of men in many ways: it is more rapidly matured, and yet, possibly, more *viable* (as the French say), more likely to live, and to live longer; it is more delicate, in all senses of the word, more sympathetic, more elastic, more liable to shock and to change; it is obviously less in weight, in mass, in physical force, but above all in muscular persistence. It is not true to say that the feminine organization is, on the whole, weaker, because there are certain forms of fatigue, such as those of nursing the sick or the infant, minute care of domestic details, ability to resist the wear and tear of anxiety on the body, in which women certainly at present surpass men.

But there is one feature in the feminine organization which, for industrial and political purposes, is more important than all. It is subject to functional interruption absolutely incompatible with the highest forms of continuous pressure. With mothers, this interruption amounts to seasons of prostration

during many of the best years of life; with all women (but a small exception not worth considering) it involves some interruption to the maximum working capacity. A perfectly healthy man works from childhood to old age, marries and brings up a family of children, without knowing one hour of any one day when he was not "quite fit." No woman could say the same; and of course no mother could deny that for months she had been a simple invalid. Now, for all the really severe strains of industrial, professional, and public careers, the first condition of success is the power to endure long continuous pressure at the highest point, without the risk of sudden collapse, even for an hour.

Supposing all other forces equal, it is just the five per cent of periodical unfitness which makes the whole difference between the working capacity of the sexes. Imagine an army in the field or a fleet at sea, composed of women. In the course of nature, on the day of battle or in storm, a percentage of every regiment and of every crew would be in childbed, and a much larger percentage would be, if not in hospital, below the mark or liable to contract severe disease if subject to the strain of battle or storm. Of course it will be said that civil life is not war, and that mothers are not intended to take part. But all women may become mothers; and though industry, the professions, and politics are not war, they call forth qualities of endurance, readiness, and indomitable vigor quite as truly as war.

Either the theory of opening all occupations to women means opening them to an unsexed minority of women, or it means a diminution and speedy end to the human race, or it means that the severer occupations are to be carried on in a fashion far more desultory and amateurish than ever has yet been known. It is owing to a very natural shrinking from hard facts, and a somewhat misplaced conventionality, that this fundamental point has been kept out of sight, whilst androgynous ignorance has gone about claiming for women a life of toil, pain, and danger, for which every husband, every biologist, every physi-

cian, every mother — every true woman — knows that women are, by the law of nature, unfit.

This is, as I said, merely a preliminary part of the question. It is decisive and fundamental, no doubt, and it lies at the root of the matter. It is a plain organic fact, that ought to be treated frankly, and which I have touched on as an incident only but with entire directness. But I feel it to be, after all, a material, and not an intellectual or spiritual ground, and to belong to the lower aspects of the question. We must notice it, for it cannot be disregarded; but it is by no means the heart of the matter. The heart of the matter is the greater power of affection in Woman, or, it is better to say, the greater degree in which the nature of Woman is stimulated and controlled by affection. It is a stigma on our generation that so obvious a commonplace should need one word to support it. Happily there is one trait in humanity which the most cynical sophistry has hardly ventured to belittle — the devotion of the mother to her offspring.

This is the universal and paramount aspect of the matter. For the life of every man and woman now alive, or that ever lived, has depended on the mother's love, or that of some woman who played a mother's part. It is a fact so transcendent that we are wont to call it an animal instinct. It is, however, the central and most perfect form of human feeling. It is possessed by all women: it is the dominant instinct of all women; it possesses women, whether mothers or not, from the cradle to the grave. The most degraded woman is in this superior to the most heroic man (abnormal cases apart). It is the earliest, most organic, most universal of all the innate forces of mankind. And it still remains the supreme glory of Humanity. In this central feature of human nature, Women are always and everywhere incontestably preëminent. And round this central figure of human nature, all human civilization is, and ought to be organized; and to perfecting it all human institutions do and ought to converge.

I am very far from limiting this glorious part of maternity

in woman to the breeding and nurture of infants; nor do I mean to concentrate civilization on the propagation of the human species. I have taken the mother's care for the infant as the most conspicuous and fundamental part of the whole. But this is simply a type of the affection which in all its forms woman is perpetually offering to man and to woman — to the weak, the suffering, the careworn, the vicious, the dull, and the overburdened, as mother, as wife, as sister, as daughter, as friend, as nurse, as teacher, as servant, as counselor, as purifier, as example, in a word — as woman. The true function of woman is to educate, not children only, but men, to train to a higher civilization, not the rising generation, but the actual society. And to do this by diffusing the spirit of affection, of self-restraint, self-sacrifice, fidelity, and purity. And this is to be effected, not by writing books about these things in the closet, nor by preaching sermons about them in the congregation, but by manifesting them hour by hour in each home by the magic of the voice, look, word, and all the incommunicable graces of woman's tenderness.

All this has become so completely a commonplace that the very repeating it sounds almost like a jest. But it has to be repeated now that coarse sophistry has begun, not only to forget it, but to deny it. And we will repeat it; for we have nothing to add to all that has been said on this cardinal fact of human nature by poets, from Homer to Tennyson, by moralists and preachers, by common sense and pure minds, since the world began. We have nothing to add to it save this — which, perhaps, is really important — that this function of woman, the purifying, spiritualizing, humanizing of society, by humanizing each family and by influencing every husband, father, son, or brother, in daily contact and in unspoken language, is itself the highest of all human functions, and is nobler than anything which art, philosophy, genius, or statesmanship can produce.

The spontaneous and inexhaustible fountain of love, the secret springs whereof are the mystery of womanhood, this is

indeed the grand and central difference between the sexes. But the difference of function is quite as real, if less in degree, when we regard the intellect and the character. Plainly, the intellect of women on the whole is more early mature, more rapid, more delicate, more agile than that of men; more imaginative, more in touch with emotion, more sensitive, more individual, more teachable, whilst it is less capable of prolonged tension, of intense abstraction, of wide range, and of extraordinary complication. It may be that this is resolvable into the obvious fact of smaller cerebral masses and less nervous energy, rather than any inferiority of quality.

The fact remains that no woman has ever approached Aristotle and Archimedes, Shakespeare and Descartes, Raphael and Mozart, or has ever shown even a kindred sum of powers. On the other hand, not one man in ten can compare with average woman in tact, subtlety of observation, in refinement of mental habit, in rapidity, agility, and sympathetic touch. To ask whether the occasional outbursts of supreme genius in the male sex are higher than the almost universal quickness and fineness of mind in the female sex, is to ask an idle question. To expel either out of human nature would be to arrest civilization and to plunge us into barbarism. And the earliest steps out of barbarism would have to begin again in each wigwam with the quick observation and the flexible mind, and not with the profound genius.

As with the intellect — so with the powers of action. The character or energy of women is very different from that of men; though here again it is impossible to say which is the superior, and far less easy to make the contrast. Certainly the world has never seen a female Alexander, Julius Cæsar, Charlemagne, or Cromwell. And in mass, endurance, intensity, variety, and majesty of will no women ever approach the greatest men, and no doubt from the same reason, smaller cerebral mass and slighter nervous organization. Yet in qualities of constant movement, in perseverance, in passive endurance, in rapidity of change, in keenness of pursuit (up to a certain range and within a given

time), in adaptability, agility, and elasticity of nature, in industriousness, in love of creating rather than destroying, of being busy rather than idle, of dealing with the minutest surroundings of comfort, grace, and convenience, it is a commonplace to acknowledge women to be our superiors. And if a million housewives do not equal one Cæsar, they no doubt add more to the happiness of their own generation.

We come back to this — that in body, in mind, in feeling, in character, women are by nature designed to play a different part from men. And all these differences combine to point to a part personal not general, domestic not public, working by direct contact, not by remote suggestion, through the imagination more than through the reason, by the heart more than by the head. There is in women a like intelligence, activity, passion; like and coördinate, but not identical; equally valuable, but not equal by measure; and this all works best in the Home. That is to say, the sphere in which women act at their highest is the Family, and the side where they are the strongest is Affection. The sphere where men act at their highest is in public, in industry, in the service to the State; and the side where men are at their strongest is Activity. Intelligence is common to both, capable in men of more sustained strain, apt in women for more delicate and mobile service. That is to say, the normal and natural work of women is by personal influence within the Home.

All this is so obvious, it has been so completely the universal and instinctive practice of mankind since civilization began, that to repeat it would be wearisome if the modern spirit of social anarchy were not eager to throw it all aside. And we have only to repeat the old saws on the matter, together with this — that such a part is the noblest which civilization can confer, and was never more urgently needed than it is to-day. In accepting it graciously and in filling it worthily, women are placing themselves as a true spiritual force in the vanguard of human evolution, and are performing the holiest and most beautiful of all duties which Humanity has reserved for her

best-beloved children. The source of the outcry we hear for the Emancipation of Women — their emancipation from their noblest duty — is that in this materialist age men are prone to despise what is pure, lofty, and tender, and to exalt what is coarse, vulgar, and vainglorious.

When we say that we would see the typical work of woman centered in her personal influence in the Home, we are not asking for arbitrary and rigid limitations. We are not calling out for any new legislation or urging public opinion to close any womanly employment for women. There are a thousand ways in which the activity of women may be of peculiar value to the community, and many of these necessarily carry women outside their own houses and into more or less public institutions. The practice of the ladies connected with our Church alone would satisfy us how great is the part which women have to play in teaching, in directing moral and social institutions, in organizing the higher standard of opinion, in inspiring enthusiasm in young and old. We are heartily with such invaluable work; and we find that modern civilization offers to women as many careers as it offers to men.

All that we ask is that such work and such careers shall be founded on *womanly* ideals, and shall recognize the essential difference in the social functions of men and women. We know that in a disorganized condition of society there are terrible accumulations of exceptional and distressing personal hardship. Of course millions of women have, and can have, no husbands; hundreds of thousands have no parents, no brother, no true family. No one pretends that society is without abundant room for unmarried women, and has not a mass of work for women who by circumstances have been deprived of their natural family and are without any normal home. Many of such women we know to be amongst the noblest of their sex, the very salt of the earth. But their activity still retains its homelike beauty, and is still womanly and not mannish. All that we ask is that women, whether married or unmarried, whether with families of their own or not, shall

never cease to feel like women, to work as women should, to make us all feel that they are true women amongst us and not imitation men.

We are not now discussing any practical remedy for a temporary difficulty; we are only seeking to assert a paramount law of human nature. We are defending the principle of the womanliness of woman against the anarchic assertors of the manliness of woman. There is a passionate party of so-called reformers, both men and women, who are crying out for absolute assimilation as a principle; and such is the weakness of politicians and leaders that this coarse and ignorant sophism is becoming a sort of badge of Radical energy and freedom from prejudice. With all practical remedies for admitted social diseases we are ever ready to sympathize. In the name of mercy let us all do our best with the practical dilemmas which society throws up. But let us not attempt to cure them by pulling society down from its foundations and uprooting the very first ideas of social order. Exceptions and painful cases we have by the thousand. Let us struggle to help or to mend them, as exceptions, and not commit the folly of asserting that the exception is the rule.

We all know that there are more women in these kingdoms than men, and not a little perplexity arises therefrom. But since more males are born than females, the inequality is the result of abnormal causes — the emigration, wandering habits, dangerous trades, overwork, and intemperance of men. There are other countries, especially across the Ocean, where the men greatly outnumber the women. It is the first and most urgent duty of society to remedy this social disease, and not to turn society upside down in order to palliate a temporary and a local want. Certainly not, when the so-called remedy can only increase the disease by "debasing the moral currency" and desecrating the noblest duties of woman. Certainly, no reformers whatever can be more eager than we are to do our best to help in any reasonable remedy for our social maladies, be they what they may. But the extent and acuteness of social

maladies make us only more anxious to defend the first principles of human society — and to us none is so sacred as the inherent and inalienable womanliness of all women's work.

The prevalent sophistry calls out for complete freedom to every individual, male or female, and the abolition of all restraints, legal, conventional, or customary, which prevent any adult from living his or her own life at his and her private will. It is specious; but, except in an age of Nihilism, such anarchic cries would never be heard. It involves the destruction of every social institution together. The Family, the State, the Church, the Nation, Industry, social organization, law, — all rest on fixed rules, which are the standing contradiction of this claim of universal personal liberty from restraint. Society implies the control of absolute individual license; and this is a claim for absolute individual license. It is perfectly easy to find objections and personal hardship in every example of social institution.

Begin with marriage. Many married people would be happier and, perhaps, more useful, if they could separate at will. *Therefore* (the cry is), let all men and women be always free to live together or apart, when they choose, and as long as they choose, without priests, registrars, law courts, or scandal. Many parents are unworthy to bring up their children. *Therefore*, let no parent have any control over his child. Many women would be more at ease and perhaps more able to work in their own way, if they wore men's clothes. And some men, among the old and the delicate, might be more comfortable in skirts. *Therefore*, abolish the foolish restrictions about Male and Female dress. And this our reformers, it seems, are preparing to do. Many men and more women are, at twenty, better fitted to "come of age" than some men at thirty. *Therefore*, let every one "come of age" when he or she thinks fit. Many a man who, through hunger, steals a turnip is an angel of light compared with a millionaire who speculates. *Therefore*, abolish all laws against stealing. Many a foreigner living in England knows far more of politics than most native electors. *Therefore*, abolish all restrictions applying to "aliens" as such.

Many a layman can preach a better sermon than most priests, can cure disease better than some doctors, can argue a case better than certain barristers, could keep deposits better than some bankers, find a thief quicker than most policemen, and drive a "hansom" better than some cabmen. *Therefore* — it is argued — let every man, woman, and child live with whomsoever he or she like, wear breeches or petticoats as he or she prefer, put their vote in a ballot box whenever they see one at hand, conduct divine service, treat the sick, plead causes, coin money, carry letters, drive cabs, and arrest their neighbors, as they like, and as long as they like, and so far as they can get others to consent. And thus we shall get rid of all personal hardships, all restrictions as to age, sex, and competence, and all public registration; we shall abolish monopolies, male tyranny, and social oppression generally.

The claim for the complete "emancipation" of women stands or falls along with these other examples of emancipation. And the answer to it is the same. The restriction, which in a few cases is needless, hard, even unjust, is of infinite social usefulness in the vast majority of cases, and "to free" the few would be to inflict permanent injury on the mass. To make marriage a mere arrangement of two persons at will would be to introduce a subtle source of misery into every home. To leave women free to go about in men's clothes and men free to adopt women's clothes, would be to introduce unimaginable coarseness, vice, and brutalization. To leave every one free to fill any public office, with or without public guarantee or professional training, would open the door to continual fraud, imposture, disputes, uncertainty, and confusion. It is to prevent all these evils that monopolies, laws, conventions, registers, and other restrictions on personal license exist. And the first and most fundamental of all these restrictions are those which distinguish the life of women from that of men.

Not very many reformers consciously intend the "emancipation" of women to go as far as this. There is a great deal of playing with the question, more or less honest, more or less

serious, as there is much playing with Socialism, Agnosticism, and so forth, by people who perhaps, in their hearts, merely wish to see women more active and better taught, or some of the worst hardships of workmen redressed, or the dogmas of Orthodoxy somewhat relaxed. But when a great social institution is seriously threatened we must deal with the real revolutionists who have a consistent aim and mean what they say. And the real revolutionists aim at the total "emancipation" of women, and by this they mean that law, custom, convention, and public opinion shall leave every adult woman free to do whatever any adult man is free to do, and without let or reproach, to live in any way, adopt any habit, follow any pursuit, and undertake any duty, public or private, which is open or reserved to men.

Now I deliberately say that this result would be the most disastrous to human civilization of any which could afflict it — worse than to return to slavery and polytheism. If only a small minority of women availed themselves of their "freedom," the beauty of womanliness would be darkened in every home. Just as if but a few married people accepted the legalized liberty of parting by consent, every husband and every wife would feel their married life sensibly precarious and unsettled. There is nothing that I know of but law and convention to hinder a fair percentage of women from becoming active members of Parliament and useful ministers of the Crown, learned professors of Hebrew and anatomy, very fair priests, advocates, surgeons, nay, tailors, joiners, cab drivers, or soldiers, if they gave their minds to it. The shouting which takes place when a woman passes a good examination, makes a clever speech, manages well an institution, climbs a mountain, or makes a perilous journey of discovery, always struck me as very foolish and most inconsistent. I have so high an opinion of the brains and energy, the courage and resource of women, that I should be indeed surprised if a fair percentage of women could not achieve all in these lines which is expected of the average man. My estimate of women's powers is so real and so great that if

all occupations were entirely open to women, I believe that a great many women would distinguish themselves in all but the highest range, and that, in a corrupted state of public opinion, a very large number of women would waste their lives in struggling after distinction.

Would waste their lives, I say. For they would be striving, with pain and toil and the sacrifice of all true womanly joys, to obtain a lower prize for which they are not best fitted, in lieu of a loftier prize for which they are preëminently fit. A lower prize, although possibly one richer in money, in fame, or in power, but essentially a coarser and more material aim. And in an age like this there is too much reason to fear that ambition, and the thirst for gain and supremacy, would tempt into the unnatural competition many a fine and womanly nature. Our daughters continually desire to see their names in newspapers, to display the cheap glories of academic or professional honors, to contemplate their bankers' pass books in private, and to advertise in public their athletic record.

Let us teach them that this specious agitation must ultimately degrade them, sterilize them, unsex them. The glory of woman is to be tender, loving, pure, inspiring in her home; it is to raise the moral tone of every household, to refine every man with whom, as wife, daughter, sister, or friend, she has intimate converse; to form the young, to stimulate society, to mitigate the harshness and cruelty and vulgarity of life everywhere. And it is no glory to woman to forsake all this and to read for honors with towelled head in a college study, to fight with her own brother for a good "practice," to spend the day in offices and the night in the "House." These things have to be done — and men have to do them; it is their nature. But the other, the higher duties of love, beauty, patience, and compassion, can only be performed by women, and by women only so long as it is recognized to be their true and essential field.

It is impossible to do both together. Women must choose to be either women or abortive men. They cannot be both women and men. When men and women are once started as

competitors in the same fierce race, as rivals and opponents instead of companions and helpmates, with the same habits, the same ambitions, the same engrossing toil, and the same public lives, Woman will have disappeared, society will consist of individuals distinguished physiologically, as are horses or dogs, into male and female specimens. Family will mean groups of men and women who live in common, and Home will mean the place where the group collects for shelter.

The Family is the real social unit, and what society has to do is to promote the good of the Family. And in the Family woman is as completely supreme as is man in the State. And for all moral purposes the Family is more vital, more beautiful, more universal than the State. To keep the Family true, refined, affectionate, faithful, is a grander task than to govern the State; it is a task which needs the whole energies, the entire life of Woman. To mix up her sacred duty with the coarser occupations of politics and trade is to unfit her for it as completely as if a priest were to embark in the business of a money-lender. That such primary social truths were ever forgotten at all is one of the portents of this age of skepticism, mammon-worship, and false glory. Whilst the embers of the older Chivalry and Religion retained their warmth, no decent man, much less woman, could be found to throw ridicule on the chivalrous and saintly ideal of woman as man's guardian angel and queen of the home. But the ideals of Religion of old are grown faint and out of fashion, and the priest of to-day is too often willing to go with the times. Is it to be left to the Religion of Humanity to defend the primeval institutions of society? Let us then honor the old-world image of Woman as being relieved by man from the harder tasks of industry, from the defense and management of the State, in order that she may set herself to train up each generation to be worthier than the last, and may make each home in some sense a heaven of peace on earth.

XIX

THE MORAL EQUIVALENT OF WAR[1]

WILLIAM JAMES

[*The Moral Equivalent of War*, the last public utterance of William James, is significant as expressing the opinions of a practical psychologist on a question of growing popular interest. For the past fifteen years the movement for promoting international peace has been enlisting the support of organizations and individuals the world over. That this is a question on which much may be said for the opposition, James, though a pacificist, admits with his usual fair-mindedness, pointing out that militarism is the sole nourisher of certain human virtues that the world cannot let die, and that until the peace party devises some substitute, some moral equivalent, for the disciplinary value of war, their utopian goal is neither desirable nor possible. His own solution is advanced not as a practical measure, but merely as an illustration to show that the world is full of opportunities for the peaceful development and continuation of the martial qualities of human life.

This essay was written for general dissemination as a publication of the American Association for International Conciliation, February, 1910. As it not only presents a peace program but defines as well the most familiar arguments of the war party, no militarist article has been included, although it may be mentioned that a suggestive apology for war is to be found among De Quincey's *Essays* and also in Ruskin's *Crown of Wild Olive*. Additional documents on conciliation, approaching the question from innumerable points of view, are published by the Association mentioned above.]

THE war against war is going to be no holiday excursion or camping party. The military feelings are too deeply grounded to abdicate their place among our ideals until better substitutes are offered than the glory and shame that come to nations as well as to individuals from the ups and downs of politics and the

[1] Reprinted by permission of the American Association for International Conciliation, and of Messrs. Longmans, Green, and Company, publishers of *Memories and Studies*, by William James.

vicissitudes of trade. There is something highly paradoxical in the modern man's relation to war. Ask all our millions, north and south, whether they would vote now (were such a thing possible) to have our war for the Union expunged from history, and the record of a peaceful transition to the present time substituted for that of its marches and battles, and probably hardly a handful of eccentrics would say yes. Those ancestors, those efforts, those memories and legends, are the most ideal part of what we now own together, a sacred spiritual possession worth more than all the blood poured out. Yet ask those same people whether they would be willing in cold blood to start another civil war now to gain another similar possession, and not one man or woman would vote for the proposition. In modern eyes, precious though wars may be, they must not be waged solely for the sake of the ideal harvest. Only when forced upon one, only when an enemy's injustice leaves us no alternative, is a war now thought permissible.

It was not thus in ancient times. The earlier men were hunting men, and to hunt a neighboring tribe, kill the males, loot the village and possess the females, was the most profitable, as well as the most exciting, way of living. Thus were the more martial tribes selected, and in chiefs and peoples a pure pugnacity and love of glory came to mingle with the more fundamental appetite for plunder.

Modern war is so expensive that we feel trade to be a better avenue to plunder; but modern man inherits all the innate pugnacity and all the love of glory of his ancestors. Showing war's irrationality and horror is of no effect upon him. The horrors make the fascination. War is the *strong* life; it is life *in extremis;* war taxes are the only ones men never hesitate to pay, as the budgets of all nations show us.

History is a bath of blood. The Iliad is one long recital of how Diomedes and Ajax, Sarpedon and Hector, *killed.* No detail of the wounds they made is spared us, and the Greek mind fed upon the story. Greek history is a panorama of jingoism and imperialism — war for war's sake, all the citizens

being warriors. It is horrible reading, because of the irrationality of it all — save for the purpose of making "history" — and the history is that of the utter ruin of a civilization in intellectual respects perhaps the highest the earth has ever seen.

Those wars were purely piratical. Pride, gold, women, slaves, excitement, were their only motives. In the Peloponnesian war, for example, the Athenians asked the inhabitants of Melos (the island where the "Venus of Milo" was found), hitherto neutral, to own their lordship. The envoys meet, and hold a debate which Thucydides gives in full, and which, for sweet reasonableness of form, would have satisfied Matthew Arnold. "The powerful exact what they can," said the Athenians, "and the weak grant what they must." When the Meleans say that sooner than be slaves they will appeal to the gods, the Athenians reply: "Of the gods we believe and of men we know that, by a law of their nature, wherever they can rule they will. This law was not made by us, and we are not the first to have acted upon it; we did but inherit it, and we know that you and all mankind, if you were as strong as we are, would do as we do. So much for the gods; we have told you why we expect to stand as high in their good opinion as you." Well, the Meleans still refused, and their town was taken. "The Athenians," Thucydides quietly says, "thereupon put to death all who were of military age and made slaves of the women and children. They then colonized the island, sending thither five hundred settlers of their own."

Alexander's career was piracy pure and simple, nothing but an orgy of power and plunder, made romantic by the character of the hero. There was no rational principle in it, and the moment he died his generals and governors attacked one another. The cruelty of those times is incredible. When Rome finally conquered Greece, Paulus Æmilius was told by the Roman Senate to reward his soldiers for their toil by "giving" them the old kingdom of Epirus. They sacked seventy cities and carried off a hundred and fifty thousand inhabitants as slaves. How many they killed I know not; but in Etolia they killed all the

senators, five hundred and fifty in number. Brutus was "the noblest Roman of them all," but to reanimate his soldiers on the eve of Philippi he similarly promises to give them the cities of Sparta and Thessalonica to ravage, if they win the fight.

Such was the gory nurse that trained societies to cohesiveness. We inherit the warlike type; and for most of the capacities of heroism that the human race is full of we have to thank this cruel history. Dead men tell no tales, and if there were any tribes of other type than this they have left no survivors. Our ancestors have bred pugnacity into our bone and marrow, and thousands of years of peace won't breed it out of us. The popular imagination fairly fattens on the thought of wars. Let public opinion once reach a certain fighting pitch, and no ruler can withstand it. In the Boer war both governments began with bluff, but couldn't stay there, the military tension was too much for them. In 1898 our people had read the word WAR in letters three inches high for three months in every newspaper. The pliant politician McKinley was swept away by their eagerness, and our squalid war with Spain became a necessity.

At the present day, civilized opinion is a curious mental mixture. The military instincts and ideals are as strong as ever, but are confronted by reflective criticisms which sorely curb their ancient freedom. Innumerable writers are showing up the bestial side of military service. Pure loot and mastery seem no longer morally avowable motives, and pretexts must be found for attributing them solely to the enemy. England and we, our army and navy authorities repeat without ceasing, arm solely for "peace," Germany and Japan it is who are bent on loot and glory. "Peace" in military mouths to-day is a synonym for "war expected." The word has become a pure provocative, and no government wishing peace sincerely should allow it ever to be printed in a newspaper. Every up-to-date dictionary should say that "peace" and "war" mean the same thing, now *in posse*,[1] now *in actu*.[2] It may even reasonably be

[1] As a possibility. — *Editors.* [2] As a fact. — *Editors.*

said that the intensely sharp competitive *preparation* for war by the nations *is the real war*, permanent, unceasing; and that the battles are only a sort of public verification of the mastery gained during the "peace" interval.

It is plain that on this subject civilized man has developed a sort of double personality. If we take European nations, no legitimate interest of any one of them would seem to justify the tremendous destructions which a war to compass it would necessarily entail. It would seem as though common sense and reason ought to find a way to reach agreement in every conflict of honest interests. I myself think it our bounden duty to believe in such international rationality as possible. But, as things stand, I see how desperately hard it is to bring the peace party and the war party together, and I believe that the difficulty is due to certain deficiencies in the program of pacificism which set the militarist imagination strongly, and to a certain extent justifiably, against it. In the whole discussion both sides are on imaginative and sentimental ground. It is but one utopia against another, and everything one says must be abstract and hypothetical. Subject to this criticism and caution, I will try to characterize in abstract strokes the opposite imaginative forces, and point out what to my own very fallible mind seems the best utopian hypothesis, the most promising line of conciliation.

In my remarks, pacificist though I am, I will refuse to speak of the bestial side of the war régime (already done justice to by many writers) and consider only the higher aspects of militaristic sentiment. Patriotism no one thinks discreditable; nor does any one deny that war is the romance of history. But inordinate ambitions are the soul of every patriotism, and the possibility of violent death the soul of all romance. The militarily patriotic and romantic-minded everywhere, and especially the professional military class, refuse to admit for a moment that war may be a transitory phenomenon in social evolution. The notion of a sheep's paradise like that revolts, they say, our higher imagination. Where then would be the steeps of life?

If war had ever stopped, we should have to reinvent it, on this view, to redeem life from flat degeneration.

Reflective apologists for war at the present day all take it religiously. It is a sort of sacrament. Its profits are to the vanquished as well as to the victor; and quite apart from any question of profit, it is an absolute good, we are told, for it is human nature at its highest dynamic. Its "horrors" are a cheap price to pay for rescue from the only alternative supposed, of a world of clerks and teachers, of coeducation and zoöphily, of "consumer's leagues" and "associated charities," of industrialism unlimited and feminism unabashed. No scorn, no hardness, no valor any more! Fie upon such a cattleyard of a planet!

So far as the central essence of this feeling goes, no healthy-minded person, it seems to me, can help to some degree partaking of it. Militarism is the great preserver of our ideals of hardihood, and human life with no use for hardihood would be contemptible. Without risks or prizes for the darer, history would be insipid indeed; and there is a type of military character which every one feels that the race should never cease to breed, for every one is sensitive to its superiority. The duty is incumbent on mankind, of keeping military characters in stock — of keeping them, if not for use, then as ends in themselves and as pure pieces of perfection, — so that Roosevelt's weaklings and mollycoddles may not end by making everything else disappear from the face of nature.

This natural sort of feeling forms, I think, the innermost soul of army writings. Without any exception known to me, militarist authors take a highly mystical view of their subject, and regard war as a biological or sociological necessity, uncontrolled by ordinary psychological checks and motives. When the time of development is ripe the war must come, reason or no reason, for the justifications pleaded are invariably fictitious. War is, in short, a permanent human *obligation*. General Homer Lea, in his recent book, *The Valor of Ignorance*, plants himself squarely on this ground. Readiness for war is for him the essence of nationality, and ability in it the supreme measure of the health of nations.

Nations, General Lea says, are never stationary — they must necessarily expand or shrink, according to their vitality or decrepitude. Japan now is culminating; and by the fatal law in question it is impossible that her statesmen should not long since have entered, with extraordinary foresight, upon a vast policy of conquest — the game in which the first moves were her wars with China and Russia and her treaty with England, and of which the final objective is the capture of the Philippines, the Hawaiian Islands, Alaska, and the whole of our coast west of the Sierra Passes. This will give Japan what her ineluctable vocation as a state absolutely forces her to claim, the possession of the entire Pacific Ocean; and to oppose these deep designs we Americans have, according to our author, nothing but our conceit, our ignorance, our commercialism, our corruption, and our feminism. General Lea makes a minute technical comparison of the military strength which we at present could oppose to the strength of Japan, and concludes that the islands, Alaska, Oregon, and Southern California, would fall almost without resistance, that San Francisco must surrender in a fortnight to a Japanese investment, that in three or four months the war would be over, and our Republic, unable to regain what it had heedlessly neglected to protect sufficiently, would then "disintegrate," until perhaps some Cæsar should arise to weld us again into a nation.

A dismal forecast indeed! Yet not unplausible, if the mentality of Japan's statesmen be of the Cæsarian type of which history shows so many examples, and which is all that General Lea seems able to imagine. But there is no reason to think that women can no longer be the mothers of Napoleonic or Alexandrian characters; and if these come in Japan and find their opportunity, just such surprises as *The Valor of Ignorance* paints may lurk in ambush for us. Ignorant as we still are of the innermost recesses of Japanese mentality, we may be foolhardy to disregard such possibilities.

Other militarists are more complex and more moral in their considerations. The *Philosophie des Krieges*, by S. R. Steinmetz, is a good example. War, according to this author, is an

ordeal instituted by God, who weighs the nations in its balance. It is the essential form of the state, and the only function in which peoples can employ all their powers at once and convergently. No victory is possible save as the resultant of a totality of virtues, no defeat for which some vice or weakness is not responsible. Fidelity, cohesiveness, tenacity, heroism, conscience, education, inventiveness, economy, wealth, physical health and vigor — there isn't a moral or intellectual point of superiority that doesn't tell, when God holds his assizes and hurls the peoples upon one another. *Die Weltgeschichte ist das Weltgericht*[1]; and Dr. Steinmetz does not believe that in the long run chance and luck play any part in apportioning the issues.

The virtues that prevail, it must be noted, are virtues anyhow, superiorities that count in peaceful as well as in military competition; but the strain on them, being infinitely intenser in the latter case, makes war infinitely more searching as a trial. No ordeal is comparable to its winnowings. Its dread hammer is the welder of men into cohesive states, and nowhere but in such states can human nature adequately develop its capacity. The only alternative is "degeneration."

Dr. Steinmetz is a conscientious thinker, and his book, short as it is, takes much into account. Its upshot can, it seems to me, be summed up in Simon Patten's word, that mankind was nursed in pain and fear, and that the transition to a "pleasure economy" may be fatal to a being wielding no powers of defense against its disintegrative influences. If we speak of the *fear of emancipation from the fear régime*, we put the whole situation into a single phrase; fear regarding ourselves now taking the place of the ancient fear of the enemy.

Turn the fear over as I will in my mind, it all seems to lead back to two unwillingnesses of the imagination, one æsthetic, and the other moral: unwillingness, first to envisage a future in which army life, with its many elements of charm, shall be forever impossible, and in which the destinies of peoples shall nevermore be decided quickly, thrillingly, and tragically, by force, but

[1] The history of the world is the judgment of the world. — *Editors.*

only gradually and insipidly by "evolution"; and, secondly unwillingness to see the supreme theater of human strenuousness closed, and the splendid military aptitudes of men doomed to keep always in a state of latency and never show themselves in action. These insistent unwillingnesses, no less than other æsthetic and ethical insistencies, have, it seems to me, to be listened to and respected. One cannot meet them effectively by mere counter-insistency on war's expensiveness and horror. The horror makes the thrill; and when the question is of getting the extremest and supremest out of human nature, talk of expense sounds ignominious. The weakness of so much merely negative criticism is evident — pacificism makes no converts from the military party. The military party denies neither the bestiality nor the horror, nor the expense; it only says that these things tell but half the story. It only says that war is *worth* them; that, taking human nature as a whole, its wars are its best protection against its weaker and more cowardly self, and that mankind cannot *afford* to adopt a peace economy.

Pacificists ought to enter more deeply into the æsthetical and ethical point of view of their opponents. Do that first in any controversy, says J. J. Chapman; *then move the point*, and your opponent will follow. So long as anti-militarists propose no substitute for war's disciplinary function, no *moral equivalent* of war, analogous, as one might say, to the mechanical equivalent of heat, so long they fail to realize the full inwardness of the situation. And as a rule they do fail. The duties, penalties, and sanctions pictured in the utopias they paint are all too weak and tame to touch the military minded. Tolstoi's pacificism is the only exception to this rule, for it is profoundly pessimistic as regards all this world's values, and makes the fear of the Lord furnish the moral spur provided elsewhere by the fear of the enemy. But our socialistic peace advocates all believe absolutely in this world's values; and instead of the fear of the Lord and the fear of the enemy, the only fear they reckon with is the fear of poverty if one be lazy. This weakness pervades all the socialistic literature with which I am acquainted. Even in Lowes Dickin-

son's exquisite dialogue,[1] high wages and short hours are the only forces invoked for overcoming man's distaste for repulsive kinds of labor. Meanwhile men at large still live as they always have lived, under a pain-and-fear economy — for those of us who live in an ease economy are but an island in the stormy ocean — and the whole atmosphere of present-day utopian literature tastes mawkish and dishwatery to people who still keep a sense for life's more bitter flavors. It suggests, in truth, ubiquitous inferiority.

Inferiority is always with us, and merciless scorn of it is the keynote of the military temper. "Dogs, would you live forever?" shouted Frederick the Great. "Yes," say our utopians, "let us live forever, and raise our level gradually." The best thing about our "inferiors" to-day is that they are as tough as nails, and physically and morally almost as insensitive. Utopianism would see them soft and squeamish, while militarism would keep their callousness, but transfigure it into a meritorious characteristic, needed by "the service," and redeemed by that from the suspicion of inferiority. All the qualities of a man acquire dignity when he knows that the service of the collectivity that owns him needs them. If proud of the collectivity, his own pride rises in proportion. No collectivity is like an army for nourishing such pride; but it has to be confessed that the only sentiment which the image of pacific cosmopolitan industrialism is capable of arousing in countless worthy breasts is shame at the idea of belonging to *such* a collectivity. It is obvious that the United States of America as they exist to-day impress a mind like General Lea's as so much human blubber. Where is the sharpness and precipitousness, the contempt for life, whether one's own, or another's? Where is the savage "yes" and "no," the unconditional duty? Where is the conscription? Where is the blood tax? Where is anything that one feels honored by belonging to?

Having said thus much in preparation, I will now confess my own utopia. I devoutly believe in the reign of peace and in the gradual advent of some sort of a socialistic equilibrium. The fatalistic view of the war function is to me nonsense, for I know

[1] *Justice and Liberty*, N. Y., 1909.

that war-making is due to definite motives and subject to prudential checks and reasonable criticisms, just like any other form of enterprise. And when whole nations are the armies, and the science of destruction vies in intellectual refinement with the sciences of production, I see that war becomes absurd and impossible from its own monstrosity. Extravagant ambitions will have to be replaced by reasonable claims, and nations must make common cause against them. I see no reason why all this should not apply to yellow as well as to white countries, and I look forward to a future when acts of war shall be formally outlawed as between civilized peoples.

All these beliefs of mine put me squarely into the anti-militarist party. But I do not believe that peace either ought to be or will be permanent on this globe, unless the states pacifically organized preserve some of the old elements of army discipline. A permanently successful peace economy cannot be a simple pleasure economy. In the more or less socialistic future towards which mankind seems drifting we must still subject ourselves collectively to these severities which answer to our real position upon this only partly hospitable globe. We must make new energies and hardihoods continue the manliness to which the military mind so faithfully clings. Martial virtues must be the enduring cement; intrepidity, contempt of softness, surrender of private interest, obedience to command, must still remain the rock upon which states are built — unless, indeed, we wish for dangerous reactions against commonwealths fit only for contempt, and liable to invite attack whenever a center of crystallization for military-minded enterprise gets formed anywhere in their neighborhood.

The war party is assuredly right in affirming and reaffirming that the martial virtues, although originally gained by the race through war, are absolute and permanent human goods. Patriotic pride and ambition in their military form are, after all, only specifications of a more general competitive passion. They are its first form, but that is no reason for supposing them to be its last form. Men now are proud of belonging to a conquering

nation, and without a murmur they lay down their persons and their wealth, if by so doing they may fend off subjection. But who can be sure that *other aspects of one's country* may not, with time and education and suggestion enough, come to be regarded with similarly effective feelings of pride and shame? Why should men not some day feel that it is worth a blood tax to belong to a collectivity superior in *any* ideal respect? Why should they not blush with indignant shame if the community that owns them is vile in any way whatsoever? Individuals, daily more numerous, now feel this civic passion. It is only a question of blowing on the spark till the whole population gets incandescent, and on the ruins of the old morals of military honor, a stable system of morals of civic honor builds itself up. What the whole community comes to believe in grasps the individual as in a vise. The war function has grasped us so far; but constructive interests may some day seem no less imperative, and impose on the individual a hardly lighter burden.

Let me illustrate my idea more concretely. There is nothing to make one indignant in the mere fact that life is hard, that men should toil and suffer pain. The planetary conditions once for all are such, and we can stand it. But that so many men, by mere accidents of birth and opportunity, should have a life of *nothing else* but toil and pain and hardness and inferiority imposed upon them, should have *no* vacation, while others natively no more deserving never get any taste of this campaigning life at all, — *this* is capable of arousing indignation in reflective minds. It may end by seeming shameful to all of us that some of us have nothing but campaigning, and others nothing but unmanly ease. If now — and this is my idea — there were, instead of military conscription a conscription of the whole youthful population to form for a certain number of years a part of the army enlisted against *Nature*, the injustice would tend to be evened out, and numerous other goods to the commonwealth would follow. The military ideals of hardihood and discipline would be wrought into the growing fiber of the people; no one would remain blind as the luxurious classes now are blind, to man's real relations to the

globe he lives on, and to the permanently sour and hard foundations of his higher life. To coal and iron mines, to freight trains, to fishing fleets in December, to dishwashing, clothes washing, and window washing, to road building and tunnel making, to foundries and stokeholes, and to the frames of skyscrapers, would our gilded youths be drafted off, according to their choice, to get the childishness knocked out of them, and to come back into society with healthier sympathies and soberer ideas. They would have paid their blood tax, done their own part in the immemorial human warfare against nature, they would tread the earth more proudly, the women would value them more highly, they would be better fathers and teachers of the following generation.

Such a conscription, with the state of public opinion that would have required it, and the many moral fruits it would bear, would preserve in the midst of a pacific civilization the manly virtues which the military party is so afraid of seeing disappear in peace. We should get toughness without callousness, authority with as little criminal cruelty as possible, and painful work done cheerily because the duty is temporary, and threatens not, as now, to degrade the whole remainder of one's life. I spoke of the "moral equivalent" of war. So far, war has been the only force that can discipline a whole community, and until an equivalent discipline is organized, I believe that war must have its way. But I have no serious doubt that the ordinary prides and shames of social man, once developed to a certain intensity, are capable of organizing such a moral equivalent as I have sketched, or some other just as effective for preserving manliness of type. It is but a question of time, of skillful propagandism, and of opinion-making men seizing historic opportunities.

The martial type of character can be bred without war. Strenuous honor and disinterestedness abound elsewhere. Priests and medical men are in a fashion educated to it, and we should all feel some degree of it imperative if we were conscious of our work as an obligatory service to the state. We should be *owned*, as soldiers are by the army, and our pride would rise accordingly.

We could be poor, then, without humiliation, as army officers now are. The only thing needed henceforward is to inflame the civic temper as past history has inflamed the military temper. H. G. Wells, as usual, sees the center of the situation. "In many ways," he says, "military organization is the most peaceful of activities. When the contemporary man steps from the street, of clamorous insincere advertisement, push, adulteration, underselling and intermittent employment, into the barrack yard, he steps on to a higher social plane, into an atmosphere of service and coöperation and of infinitely more honorable emulations. Here at least men are not flung out of employment to degenerate because there is no immediate work for them to do. They are fed and drilled and trained for better services. Here at least a man is supposed to win promotion by self-forgetfulness and not by self-seeking. And beside the feeble and irregular endowment of research by commercialism, its little short-sighted snatches at profit by innovation and scientific economy, see how remarkable is the steady and rapid development of method and appliances in naval and military affairs! Nothing is more striking than to compare the progress of civil conveniences which has been left almost entirely to the trader, to the progress in military apparatus during the last few decades. The house appliances of to-day, for example, are little better than they were fifty years ago. A house of to-day is still almost as ill-ventilated, badly heated by wasteful fires, clumsily arranged and furnished as the house of 1858. Houses a couple of hundred years old are still satisfactory places of residence, so little have our standards risen. But the rifle or battleship of fifty years ago was beyond all comparison inferior to those we possess; in power, in speed, in convenience alike. No one has a use now for such superannuated things." [1]

Wells adds [2] that he thinks that the conceptions of order and discipline, the tradition of service and devotion, of physical fitness, unstinted exertion, and universal responsibility, which universal military duty is now teaching European nations, will

[1] *First and Last Things*, 1908, p. 215. [2] *Ibid.*, p. 226.

remain a permanent acquisition, when the last ammunition has been used in the fireworks that celebrate the final peace. I believe as he does. It would be simply preposterous if the only force that could work ideals of honor and standards of efficiency into English or American natures should be the fear of being killed by the Germans or the Japanese. Great indeed is Fear; but it is not, as our military enthusiasts believe and try to make us believe, the only stimulus known for awakening the higher ranges of men's spiritual energy. The amount of alteration in public opinion which my utopia postulates is vastly less than the difference between the mentality of those black warriors who pursued Stanley's party on the Congo with their cannibal war cry of "Meat! Meat!" and that of the "general staff" of any civilized nation. History has seen the latter interval bridged over: the former one can be bridged over much more easily.